The Veterinary Record

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S., 1888.

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General Articles

THE INCIDENCE OF TUBERCULOSIS IN DAIRYING HERDS

R. R. MOODIE, M.R.C.V.S.
ROTHESAY

Dr. Montgomerie and Mr. Rowlands have opened this discussion, followed by Major Rabagliati, who suggests that others might be induced to continue it. Practitioners in recent years must have done a great deal of testing and although they may not have recorded their results they must have formed definite opinions and have accumulated a large amount of valuable information. As emanating from a practitioner who has done a fair amount of testing of late years, the following notes may be of interest.

Any testing I have done has largely been in diarying herds. The herds are practically all self-contained and the chief industry is milk production and the rearing of calves. Until recently these calves were reared and sold as calving heifers or as calving cows carrying their second calf. A few of the best were, of course, maintained in the herds to keep up the breeding stock. Now, with the demand for milk from tested cows, I have been advocating the retention of the heifers as I have proved that the majority of these animals do not react to the tuberculin test. It is only in grossly infected herds where open cases of tuberculosis occur year after year that a large number of the young animals react. I have known herds where more than 50 per cent. of the cows failed to pass the test but where the young animals did not react. I never test the milking cows only, as I find it is misleading and discouraging to the owner: I prefer to include in the test all the calving and bulling heifers, *i.e.*, the young stock from 18 months old upwards. This gives an owner a fair idea of how he stands.

Since Dr. Montgomerie's article appeared in *The Veterinary Record*, I have recorded the results of tests more particularly, these being as follows:—

TESTED FOR THE FIRST TIME IN JANUARY, 1936.

Herd.	Tested.	Reacted.
(1) ...	24 cows, 2 heifers, 8 stirks ...	1 cow
(2) ...	24 cows, 14 heifers	12 cows, 1 heifer
(3) ...	18 cows, 9 heifers	9 cows
(4) ...	21 cows, 10 stirks, 3 bulls ...	5 cows, 2 stirks, 1 bull

The above is a fair average of the results I get in this district, but I have also had the two extremes. In a herd of 65 animals tested (cows, heifers and stirks, *i.e.*, all the animals over 15-18 months) there was not a single reactor. In one herd of 22 cows and another of 26 cows all passed the test. On the other hand, there are a few herds where the percentage of reactors is very high, but the latter are the exception and in one of these herds I found that 50 per cent. of all the young stock passed the test.

ELIMINATION.—In the above four herds the owners should have no difficulty in obtaining a tuberculin-tested herd. No. 1 is now clear. No. 2 has 13 young animals in calf to replace his twelve reacting cows: at the outside he should be clear in two years' time—that allows for a few of his passed animals going down in the next two years. No. 3 should also be clear in two years, while No. 4 will be clear in one year. In regard to the herds where the percentage of reactors is very high, the first step has been to eliminate all the clinical cases, to cover in the drains—as it was found that on one farm the drains from the byre passed through the fields as open drains and then spread out over the pasture—to isolate the reactors from the non-reactors as far as possible (the young non-reactors are being wintered out) and to disinfect the byres. For this purpose the blow-lamp is the most efficient agent.

Testing

I use a reliable tuberculin (Burroughs Wellcome & Co.), and one that is not too viscid and which, on injection, leaves a well-defined pea in non-reactors. The pea is the guarantee that the injection was properly made and is a definite location for the second injection. Only in official testing do I give two injections. For elimination purposes I give one injection in the caudal fold and read the reaction in four days. (It is too soon to define the results in three days as in many cases the swelling only commences to rise after the third day.) In non-reactors there is a small, well-defined swelling the size

of a pea or a pellet in the skin with no surrounding œdema. Anything different from that is a reactor. I have tested hundreds of animals in this way and on applying the double intradermal test I have always had identical results.

A Few Remarks.—Dr. Montgomerie mentions the swelling that arises at the site of the injection. This is usually very distinct about half-an-hour after the injection and can be seen quite plainly from the walk or milking passage in a well-lighted byre. In applying the double intradermal test, I always look for this swelling after the first injection to satisfy myself that the injection has been properly made.

Young reacting animals invariably give a large swelling which is easy to define. In older animals (three years and upwards) the reaction is often small and difficult to interpret. Has the size of the reaction any relation to the extent of the disease in the reacting animal? My own opinion is that it has. I would say *the size of the reaction is in inverse proportion to the extent of the disease in the reacting animal.* My reasons for this opinion are as follows: young animals that have not been long infected or that cannot be advanced cases, such as calves two or three months old, almost always give a pronounced reaction. Old cows and particularly those showing clinical symptoms of tuberculosis very often show very little reaction and in some cases none at all. It therefore behoves us to beware of the doubtful reactor.

Are there any doubtful reactors? In my view, yes. Three months ago I tested seven in-calf heifers and six passed, while one gave a rather indefinite reaction. A few days ago I re-tested these seven heifers and six reacted. During these three months there must have been a period when some of these animals would give a doubtful reaction. One would not expect a non-reactor suddenly to become a definite reactor. There would be a transition period in which the reaction would be doubtful. It is not sufficient to say all doubtful reactors are potential reactors, for the following reason: In Dr. Montgomerie's article it is stated that 16 per cent. of the calves reacted and only 5 per cent. of the older animals. Dr. Montgomerie does not believe that calves overcome the infection or lose their ability to react. I hold the opposite view—that an animal can and does recover from tuberculosis. It is surely not too much to think that in mild infections the animal eventually recovers! In practically all other diseases there are a certain number of recoveries. Why not in tuberculosis? A number of years ago when testing a herd, one particular cow reacted. A year or two later this cow passed the test. Later still, she died suddenly and when making a *post-mortem* to ascertain the cause of death I examined her as carefully as I could in the field, for tuberculous lesions. The only lesion I found was one small calcareous nodule in the bronchial or mediastinal gland. Was it not possible for this cow to react while this nodule was active and that, after the nodule became calcareous, the cow would cease to react? For this reason during the transition period it is surely not too much to expect an animal to give a doubtful reaction to any test. Therefore a doubtful reactor may, I suggest, be a cow which is either going down with tuberculosis or one which is recovering. There may, of course, be other reasons.

Some time ago the Government voted three-quarters of a million pounds sterling to clean up the herds in this country. Is it not time this money was being used for this purpose? Instead of spending this sum on officials it would be more to the point if producers who had tuberculin-tested herds were paid one penny per gallon extra for all milk produced and if they also produced Grade "A" milk they should receive an extra halfpenny per gallon. In other words, Grade "A" (T.T.) producers would receive three-halfpence per gallon extra for all milk produced. Just now there is little encouragement for owners to produce Certified or Grade "A" (T.T.) milk as retailers cannot find a market for their supplies. If such a scheme were evolved there would be no need to worry about the milk supply as in the short space of five to seven years there would be more Grade "A" (T.T.) milk in this country than would be required to supply the liquid milk trade.*

In conclusion, I suggest that my area is an ideal district for the carrying out of any eradication scheme. All the animals are home-bred and hundreds are exported to the mainland every year. There are less than 100 farms in the area, which is isolated as it is surrounded by water. Moreover, over 10 per cent. of the farms already hold Grade "A" (T.T.) licences and another 10 per cent. could qualify for this designation in a very short time.

* In this connection due regard should be paid to the effect of the premiums now offered under the Attested and Accredited Herd Schemes.—*Editor.*

Imports of horses of all classes in January were valued at £44,048, the number being 923. These included 28 stallions, 238 mares and 657 geldings. In January last year we imported 760 horses and 660 in January, 1934.

* * * * *

Reuter reports that nose-print identification for racehorses, like finger-prints for men, is being tried to prevent well-known horses from being disguised and run under false names. Nose-prints are already in use for the identification of pedigree dogs.

A FURTHER REPORT ON THE INCIDENCE OF TUBERCULOSIS, AS SHOWN BY THE DOUBLE-INTRADERMAL TUBERCULIN TEST, IN SELF-CONTAINED HERDS

T. R. THOMAS, M.R.C.V.S.
CARMARTHEN

The contribution by Dr. Montgomerie and Mr. Rowlands to *The Veterinary Record* of January 11th, followed by that of Major Rabagliati in the issue of February 1st has stimulated me to add my experience of the double intradermal tuberculin test in self-contained herds in the County of Carmarthen during the last year. Synthetic tuberculin obtained from the Cambridge Institute of Animal Pathology was used in every case.

This report differs from those of the authors previously mentioned in that the herds are scattered over the County and are not herds of one group of farms in one particular area, some of these herds being as far as 20 miles apart. In this report all the self-contained herds tested during the period mentioned are included, such herds only introducing an occasional bull or calf from an outside source. Flying herds and also herds into which stock have been introduced with a view to improving the quality of the herd, but paying no attention to tuberculosis infection, have, in the writer's experience, shown a similar high incidence of tuberculosis as has been reported previously from English counties.

The herds in this report are examples of many herds in each of their localities and, in the view of the writer, equally favourable results could be obtained were the test carried out on a larger scale in these districts. The report shows that of 22 herds, plus 28 bulls, making a total of 690 cattle tested, only 18 reacted—an amazingly low percentage of 2·6; surely an ideal position for a tuberculosis eradication scheme. Eight of these herds are already in the Attested Herd Scheme and if only a little more encouragement were given to the farmer and also the practitioner there is no reason why the rest of these herds could not be included in that scheme.

Regarding the Attested Herd Scheme, the writer would like here to draw the attention of readers to the apparent exclusion of the practitioner from playing a part in its operation. Surely the practitioner is the person most suited to encourage his clients to enter into such a scheme. He is in personal contact with the farmers, he knows the locality and so may have a good idea of herds suitable for the application of the test. As the Attested Herd Scheme stands at present, the co-operation of the practitioner is surely discouraged rather than encouraged, for after he has carried out the preliminary tests he loses contact with the herd in regard to further tests. It would be extremely interesting to learn from the Ministry of Agriculture the percentage of reactors found by their official test and whether the number found justifies the large expenditure of public money entailed.

SUMMARY OF THE REPORT.

Herd No.	Bulls.	Cows.	Heifers.	Total.	Positive.	Negative.
1	1	9	2	12	0	12
2	1	30	22	53	1	52
3	1	24	8	33	1	32
4	1	7	1	9	0	9
5	—	24	—	24	0	24
6	—	6	—	6	0	6
7	1	27	18	46	1	45
8	1	26	8	35	2	33
9	1	21	18	40	1	39
10	1	29	12	42	2	40
11	1	19	3	23	0	23
12	1	34	17	52	0	52
13	—	8	—	8	0	8
14	1	35	16	52	3	49
15	1	20	13	34	4	30
16	1	13	—	14	1	13
17	1	14	7	22	0	22
18	1	15	—	16	0	16
19	1	25	26	52	1	51
20	1	29	29	59	0	59
21	1	9	1	11	1	10
22	—	11	8	19	0	19
A	28	—	—	28	0	28
				690	18	672

SUMMARY OF REACTORS.

Cows.	Heifers.	Calves.	Bulls.	Total.
16	1 two years old	1	0	18

The following points may be of interest:—

(1) Herds numbered 4 and 20 are pedigree Friesian herds, all the remaining herds are of dairy shorthorns.

(2) The single reacting cow in each of the herds numbered 2 and 3 was the only member of the herd introduced from an outside source for a number of years.

(3) The 28 bulls included in the report are all pedigree shorthorn bulls not of one herd, but scattered in various herds throughout the county. These bulls were tested by the writer before being offered for sale.

(4) Those cattle included as heifers are rearing stock under two years old.

Clinical Communications

PRIMARY ADENO-CARCINOMA IN THE LUNG OF A DOG

G. O. DAVIES, M.V.SC. (LIV.), M.R.C.V.S., D.V.H.
Department of Veterinary Pathology, University of Liverpool

The specimen described in this note was presented at a meeting of the Lancashire Veterinary Association on December 4th, 1935, by Mr. C. F. Shawcross, M.R.C.V.S., Altrincham, to whom I am indebted for the following brief history of the case.

Subject.—Small rough-haired fox terrier, male, eleven years old.

History.—First visited by Mr. Shawcross on December 3rd, 1935, the day before it was destroyed.

Previously attended by his assistant on May 6th, 7th and 9th, 1935, and treated for a cough which appears to have persisted over a period of 12 months.

Post-mortem Examination. — The only apparent lesion was present in the left diaphragmatic lobe of the lung, its nature being illustrated in Fig. 1.

This lesion is made the subject of a special note in view of its unusual nature and the infrequency of the occurrence of this type of lesion in domesticated animals. Whilst the lung is a frequent site of secondary lesions it is rarely the site of primary malignant tumours. Although it is impossible by means of a simple *post-mortem* examination to rule out the possibility of a small primary lesion in some other situation, the naked-eye appearance of the lesion and its histological structure are such as to lead one to conclude that it was very probably primary in origin.

The macroscopic appearance of the lesion is shown in Fig. 1. The tumour involved the whole of the left diaphragmatic lobe, the remaining lobes of the lung being normal.

Fig. 2 is a low power photomicrograph of a section through the affected lung.

The appearance conveyed by Fig. 2 is that of an adenoma in which the newly-formed epithelial cells have assumed a glandu'ar arrangement. The epithelial cells are supported by a fibrous stroma which in places is very thick. Several cyst-like and duct-like spaces are present and the excessive proliferation of the epithelial elements has caused such cysts to be lined in places by more than a single layer of cells. Here and there these cells project into the lumen of the spaces and form papilliform projections, a condition which has resulted in the use of the description "papillary cystadenoma." Although in the substance of the lesion the appearance was often that of a simple non-malignant adenoma there was very definite evidence of malignancy in parts of the tissue at the margin of the lesion.

Practically the whole of the affected lobe was involved although, in the substance of the diseased tissue, areas of recognisable lung tissue showing collapse, emphysema and other changes were apparent.

Fig. 1.—Primary Adeno-carcinoma in Lung of 11-year-old Dog.

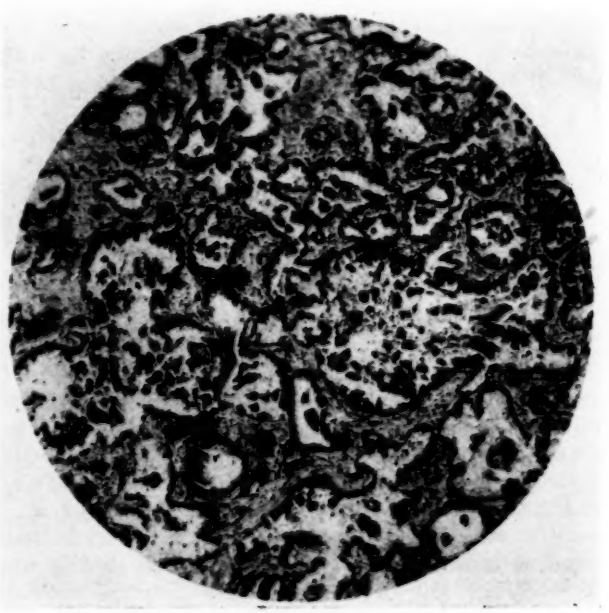

Fig. 2.—Adeno-carcinoma in Lung—Dog.

ANTHRAX IN A PACK OF HOUNDS*

A. J. WRIGHT, M.R.C.V.S.
Macclesfield

Subjects and History.—The dogs which were the victims of this outbreak of anthrax belonged to a pack of hounds which had been given a meal of knacker meat. The day following, all had diarrhœa and a few dogs died during the night. When I was called in about half the pack were ill and the owner said that all had been affected and the others were recovering.

Symptoms.—These were as follows: temperature 105°, listlessness, black diarrhœa; some dogs had swellings in the throat, some of the lips and of various places on the head.

Provisional Diagnosis.—I decided that it was probably the food that was the cause of the trouble and thought the condition was a form of food poisoning. The irregularity of the swellings had "put me off the track" of any other condition.

Laboratory Diagnosis.—I sent one of the carcases to Mr. Davies of Liverpool University, who reported that he had demonstrated anthrax in the blood and had substantiated the fact by the cultural method. The usual procedure was then adopted.

Remarks.—An interesting point was the number of dogs that recovered—the strongest and best dogs died because they had secured the largest amounts of meat when it was thrown to the pack. The dog meat included the stomach of a cow. Some of the meat was cooked and those dogs which consumed this did not suffer. The swellings were hard, except those in the throat, which were œdematous. There was no blood in the fæces.

*Reported to a meeting of the Lancashire Division, N.V.M.A., held at Manchester, December 4th, 1935.

MOTOR CAR INSURANCE

The Automobile Association wishes to draw the attention of motorists who use their cars for business purposes to a case just heard in the High Court.

A commercial traveller held a motor-car policy which defined the business use of the vehicle as "carrying on or engaged in the business or profession of representative and no other." An accident occurred while the owner and a colleague were travelling in the car together on their employers' business. The colleague was actually driving the car at the time of the accident. The Insurance Company repudiated liability on the ground that the car was not being used *solely for the business of the Insured*, and this was upheld by the Court.

The Automobile Association, therefore, urges motorists who use their cars for business purposes to make quite sure that the precise nature of the uses contemplated is clearly within the cover provided by their policies. If doubt exists, full particulars should be notified to the Insurance Company concerned with a view to any necessary amendment being made to the policy.

Abstracts

[Staphylococci from Animals, with particular reference to Toxin Production. Minett, F. C. (1936.) *J. Path. & Bact.* **42.** 1. 247-263.]

In 1935 Glenny and Stevens (*J. Path. & Bact.* Vol. 40, 201) showed that some staphylococci produce two different toxins designated α and β, and that each of these leads to the formation of a separate antitoxin. This discovery may prove to be of practical importance in connection with the prevention and treatment of staphylococcus infections in man and animals. By observing the related distribution of α and β antitoxin in normal horse sera Glenny and Stevens suspected that many staphylococci from animal sources produced β toxin. The present author has found that the production of β toxin is a characteristic feature of hæmolytic staphylococci from animals. Out of 97 strains from various animal sources, mostly cow's milk, only five failed to form recognisable amounts of β toxin. Ten strains, including eight from dogs, produced β toxin and only very small or undetectable amounts of α toxin.

Strains from the following sources were studied more fully: man, four; cow, 27; calf, five; horse, seven; sheep, two; rabbit, one; fox, one; dog, eight. Ten of the cow strains were from cases of mastitis, the rest from normal or slightly altered milk. Apart from toxin production, prominent features were: liquefaction of gelatin, acid clot in milk, acid production from mannite but not from salicin, pigmentation pale *aureus*. The staphylococci from dogs were distinguished by their power of liquefying solid horse serum and by their *albus* character. A suggestion that β toxin production and the *albus* character of strains are related properties was not borne out by experiment.

At present there is no definite information as to the relationship of the β toxin to disease processes, partly because most toxogenic staphylococci form α toxin as well. There appears to be no relationship, however, between the strength of toxin produced and the type of lesion set up. Thus the strain isolated by G. O. Davies (*Veterinary Record*, 1935, **15**, 15) from an "actinomycotic" lesion in a cow's udder was found by the present author to be of quite exceptionally low toxicity. The formation of "botriomycotic" lesions is perhaps similarly accounted for.

The antitoxin content of "normal" cow serum was tested. Out of 444 random samples, 339 had less than 7·0 international units per c.c.; in 76 of 85 random samples the β antitoxin unitage was 0·45*y* or less. (An international standard for β toxin and antitoxin has not yet been formed, hence the strength is spoken of in terms of *y* units.) F. C. M.

[Better Anesthesia in Animals: I.—Oxygen-Ether Controlled Anesthesia in the Dog, with Morphine as Pre-anesthesia Hypnotic. Covington, N. G. (1935.) *J. Amer. Vet. Med. Ass.* **87.** No. 5. pp. 562-572. 5 figs., 2 tables, 8 refs.]

The author has adapted for use upon animals a method of human anæsthesia in which oxygen is bubbled through an anæsthetic agent. A Heidbrink Model R anæsthesia head was used, and this delivers oxygen, nitrous oxide, or a mixture of oxygen and carbon-dioxide in required quantities, and reduces the size G medical oxygen cylinder pressure to working pressure. Small supplementary carbon-dioxide and oxygen cylinders may be attached to the anæsthesia head for use in collapse or post-operative shock of the patient. An automatic cylinder pressure regulator was used, to reduce the flow to working pressure and from which a flexible tube carried the gas to the anæsthetiser. An ether vaporiser with a control for the direct flow of oxygen, carbon-dioxide, or a mixture of the two was used for re-breathing or resuscitation. If the anæsthetic mixture was required the control valve was turned to bubble the gas through a layer of ether. A rubber bag of seven-quart size was inserted between the vaporiser and inhaler tube as a reservoir of the anæsthetic mixture. The inhaler tube was 44 in. long and had a junction for the attachment of two sizes of masks incorporating Heidbrink expiration valves. The apparatus is figured by photograph.

The author gives a detailed study of the respiratory and cardiac volume indices and frequencies before and during anæsthesia in the form of pneumographs and cardiographs.

In one test anæsthesia lasting 30 minutes, in which amytol sodium 3·5 gr. was the pre-anæsthetic, recovery was at least twice as long as when morphine 0·5 gr. was used in the other 19 similar tests.

Operations on eight dogs, one pig and one cow are detailed as regards the anæsthesia.

The author plans modification of the apparatus for its use upon all animals. C. V. W.

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[The Use of Traction in the Treatment of Fractures. Schroeder, E. F. (1935.) *Cornell Vet.* **25.** 2. 111-131.]

A general illustrated article on fractures of the limbs of dogs. In all cases where there is any deformity which is not readily made good by a simple splint bandage, the author advocates the use of Thomas splints, various shapes and sizes being shown. He makes them of pure aluminium rod, in thicknesses ranging between $\frac{3}{16}$ and $\frac{5}{8}$ in.: they consist of two parts, a ring to encircle the limb at its attachment to the body (this ring being used to bear the tension caused by traction on the extremity) and two long members which run down the limb and unite by a loop beyond the position of the foot. For fractures of the femur these two long members are bent in conformity to the shape of the normal hind limb, and the leg below the stifle joint is secured to them—adhesive tape being applied to the clipped skin—in such a way that it is pulled firmly away from the body, the distal loop giving purchase for traction and the body ring for anti-traction. Suitable padding and protective bandaging are, of course, applied. This method allows an open fracture to be antiseptically dealt with during the traction treatment.

Schroeder has employed direct traction on the lower end of the fractured femur in some dogs. He uses special pin-ended bone tongs for gripping the femoral shaft percutaneously; tension is taken from them by a cord, not running to the loop extremity of the splint, but to a part of the anterior member of it at a point below the position of the stifle joint.

Various fractures are suitable for treatment by the Thomas splint, the detail in the designing of which should offer no difficulty to the handy man. J. E..

* * * * *

[Studies on Infectious Pleuropneumonia of Goats in Anatolia. (Trans. title.) Kolayli, C., Raif, Esin, I., and Arayici, E. (1935.) *Bull. Acad. vét. France.* **8.** 4. 227-230.]

An immunisation experiment was carried out on 45 female goats, divided into three groups of 15. Animals in Group I were inoculated subcutaneously with either 5 or 15 c.c. doses of a vaccine made from the killed culture by adding sufficient formalin to make a final concentration of 3 per cent. In Group 2 the goats were inoculated subcutaneously with 10 or 20 c.c. of a formalised liquid culture made by grinding up hepatised lung tissue with thoracic exudate, and neutralising with ammonia after standing with 3 per cent. formalin for 24 hours. The same vaccine as in Group 2 was dried and then administered in powdered form in 1 or 2 gm. doses to Group 3 animals. No harmful effects were noted in any group and after 20 days the 45 animals were re-united and 25 healthy controls were brought to join them, as also were 20 goats suffering from infectious pleuropneumonia. During the subsequent 50 days 80 per cent. of the controls died and 30·3 per cent. of the Group 1 animals, whereas no deaths occurred in Group 2 and only 0·67 per cent. died in Group 3. Thus the formalised living culture apparently gave complete protection and the dried preparation was almost as satisfactory.

A few experiments on animals suffering from the disease indicated that recovery might occur following injection of serum from a sick animal.

W. L. S.

Report

UNITED PROVINCES, INDIA

ANNUAL REPORT OF THE CIVIL VETERINARY DEPARTMENT FOR THE YEAR 1934-35*

The report is written by Mr. Egan, who took over charge as Director of Veterinary Services on July 1st, 1934. In addition to the Director, the superior staff consisted of three circle Superintendents and one Veterinary Investigation Officer. By the retirement of Khan Bahadur Sheikh Niaz Mahomed, the senior Superintendent, who had officiated as Director, the Department has lost the services of an energetic and experienced officer. The subordinate staff numbered 219 at the end of the year under report.

Disease.—The year was a comparatively healthy one for stock and losses from rinderpest showed a decrease. The "tissue vaccine" method of immunisation against rinderpest is being tried out under the supervision of the Veterinary Investigation Officer, Mr. H. B. Shahi. The treatment of surra in equines received increased attention at centres created for the purpose.

The number of patients treated at the veterinary hospitals and dispensaries and on tour showed a satisfactory increase and there was a substantial rise in the number of castrations performed.

Work at the three laboratories of the Province continues to expand.. Experiments were conducted with a view to testing the value of colloidal iodine as a vermicide in poultry.

The incidence of bovine contagious abortion in the Province is being investigated, more effective control being foreshadowed.

Breeding Operations.—It is stated that the progeny of Government stallions continues to show improvement and that some very good stock was exhibited at the horse shows held in the districts. The activities of the Department appear to be confined to horse and mule breeding.

G. K. W.

* Superintendent, Printing and Stationery, Allahabad, India. Price R.1.

A Correction.—In the report reproduced in our last issue, of a case of contravention of the sheep scab regulations, it was stated that Mr. E. F. Hardwick, chief veterinary inspector of the North Riding County Council said that he had seen thousands of cases of sheep scab during last year. The actual words used were: "During the last few years I have seen hundreds of cases of sheep scab." We regret the repetition of the error made in the report, and take this opportunity of apologising for any inconvenience caused thereby.

"VETERINARY MILITARY HISTORY OF THE UNITED STATES"

(*By* Louis A. Merillat, Lieut.-Colonel Veterinary Reserve, Chief Veterinarian, First Army, American Expeditionary Force; and Delvin M. Campbell, Lieut.-Colonel, Veterinary Reserve, Editor, *Veterinary Medicine*)

[Reviewed by Major-General Sir John Moore, K.C.M.G., C.B., F.R.C.V.S.]

(*Continued from page* 229.)

Chapter XXX.—Delay and Incompetence in Organising the Veterinary Service of the World War

Never was an army service or a profession put into a more disadvantageous position than was the veterinary service of the army and the veterinary profession of the country at the outbreak of the World War. Congress had granted commissions not as they had usually been asked, in the grades of first lieutenant or of captain, but in grades from second lieutenant to major. The Congress had not, however, granted authority to create a veterinary corps with a responsible head, appropriate departments, officers and enlisted personnel. The veterinary service of the army on April 6th, 1917, when war was declared against Germany, was still a regimental service. In the summer of 1917, after a whole year of precious time had been wasted, Major Gerald E. Griffin, senior veterinary officer in the army, and then on a detail in the office of the Surgeon General, was directed to organise a veterinary service. More than a thousand veterinarians were immediately commissioned second lieutenants in the veterinary reserve. The headquarters of the veterinary corps was located at the Surgeon General's office at Washington, where prominent figures in the veterinary profession in both civil and military branches were assigned to organise a veterinary corps and formulate its regulations. Many of the details of the work done by the headquarters group are described in the chapters by Colonel Marshall and Major Cotton.

Chapter XXXI.—Experiences in the Surgeon General's Office

(*Contributed by Lieut.-Colonel C. J. Marshall*)

At the beginning of the World War there were but 72 veterinary officers in the service and no enlisted men. Within the year-and-a-half that followed, the veterinary service grew to 2,313 officers and 16,391 enlisted men.

Lieut.-Colonel J. A. Logan, of the Quartermaster General Department, Major William P. Hill, of the Veterinary Corps, and Lieut.-Colonel C. J. Marshall in the spring of 1916 visited the Western Front. They made a survey of the

veterinary service of the French Army. Later, Major Hill made a more thorough investigation of the veterinary service of the British Army and, being more favourably impressed by the latter than with the French system, forwarded a detailed report of the British service to the War Department. Its provisions found favour with the Surgeon General and there was general agreement among all concerned that the British plan should be followed as nearly as the laws and customs of the United States military service would permit. During the World War about half-a-million animals were purchased from many States for the army. There was a fear of infection from glanders. Yet, for the first time in the history of this country, the veterinary service eliminated that disease from public animals. Up to the present time (1934) no case of glanders has been traced to the thousands of military animals returned to the civil population at the close of hostilities from the army camps and remount depôts. Anthrax was also eliminated from public animals. Influenza, and gangrenous dermatitis were, however, responsible for great loss. The cause was to be found in faulty methods of procurement and shipping. No infection was introduced into the United States from the Western Front. The veterinary service was much improved in this country during the World War, but the duration of the War was too short to enable it to reach perfection. The Government had never specifically provided funds for veterinary education. Contributions to the land-grant colleges expended for veterinary education were so meagre and so improperly applied that the first veterinary schools were proprietary institutions. Then came the dawn of better schools. Towards the end of the nineteenth century veterinary education was established in some universities and colleges. Money provided from private sources and by State appropriations placed veterinary education on a more substantial basis. The proprietary schools went out of existence during or soon after the World War. All American veterinary schools are now departments of universities or State colleges. As regards the military veterinary service, Lieut.-Colonel Marshall states that they are glad to be a corps in the Medical Department, as the same principles of healthy hygiene and sanitation are applicable to men and animals, but in order that the veterinary corps may render corps services, it must be furnished with the rank that corresponds to corps responsibilities, that is, that of general officer. He hopes that the War Department and the Congress have profited by the experiences of the past and that the Surgeon General will be granted authority to provide the army with a veterinary corps that will be efficient in times of peace and capable of expansion when emergencies arise.

Chapter XXXII.—Experiences of a General Veterinary Inspector

(Contributed by Major C. E. Cotton)

In this chapter mention is made of the fact that the Surgeon General (Major-General W. C. Gorgas) requested all civilian members of a conference (consisting of medical and veterinary officers of the regular army) on plans for the organisation and expansion of a veterinary corps, to assist him in organising the corps, but as it was not lawful to commission them above the rank of second lieutenant, he advised them to return home until such time as he could obtain the General Staff's approval of higher rank for veterinarians from civil life. Meanwhile a veterinary advisory committee was appointed to draw up tables of organisation for a veterinary service, a General Order having authorised the appointment of a specified number of veterinary officers up to the rank of major. It set the corps strength on the percentage basis of one officer and 16 enlisted men for every 400 animals. Three "General Veterinary Inspectors" were appointed, *viz.*, Majors J. P. Turner, R. M. Staley and the writer (Cotton). The country was divided into three sections for inspection purposes. Orders were issued by these officers to visit the division camps and remount depôts of their respective sections, and to report to the Surgeon General on the sanitary conditions found to exist, the methods used in handling animals, and the efficiency of the veterinary officers on duty at these stations. The General Veterinary Inspectors were also charged with the duty of explaining the regulations which were to govern the veterinary service. Major Cotton was detailed to inspect and report on the condition of a large number of animals of the French Government in the livestock pens at the Brighton Stockyards. The inspection revealed a comparatively large number affected with glanders, and he reported that the War Department should not accept these animals until they had passed at least two negative mallein tests. He was also directed to inspect approximately 1,000 animals of the French Army at Hohokus, N.J., which were about to be purchased by the War Department. A number of these reacted to the mallein test to justify holding them for a retest a month later before accepting them. He was also directed by the Surgeon General to make inspections of the sanitary conditions under which the purchasing boards were operating, with particular attention to the Union Stockyards at Chicago where procurements were vast; and to insist that the stables where animals were assembled for purchase be placed in a sanitary condition, properly cleaned, disinfected, and ventilation installed. When animals arrived at auxiliary remount depôts, they were either affected with or had

been exposed to shipping fever and the usual run of respiratory complications. Under these conditions, the first duty of the veterinary service was to establish separate quarters for affected animals. In this work, unfortunately, it was not found possible to obtain any support from the Quartermaster Department, in the building of such places, or even in procuring the necessary material for building small corrals or partitions between existing ones.

At Calumet Stockyards in one of the suburbs of Chicago, where British animals were unloaded and fed and which were afterwards used by the War Department, there was an outbreak of vesicular stomatitis against which it was necessary to take precautionary measures of quarantine.

Arrangements were made to furnish divisions with a complete veterinary personnel and service for overseas duty, consisting of twelve officers and 51 enlisted men fully equipped with medical supplies, instruments, field kits, etc., for combat troops. Veterinary service was supplied to all cavalry, artillery and infantry units on duty at various points scattered all over the country, and to military posts having animals in considerable numbers. The veterinary profession in the United States through its organisations, particularly the American Veterinary Medical Association, which had worked for the improvement of the veterinary services of the army since 1863, should continue to recommend that the Veterinary Corps be kept in the Medical Department and to assist in maintaining a skeleton reserve organisation for expansion during future emergencies. The director of the corps should be a veterinary officer of the regular army above the rank of field officer, and to function efficiently veterinary officers in places of responsibility should rank as high as colonel. The soundness of this conclusion was self-evident.

Chapter XXXIII.—The Summer of 1917

The Act of Congress of June 3rd, 1916, provided for a veterinary reserve corps, but, as already told, nothing was done to organise it until after war was declared. The new law gave insufficient authority for organising a veterinary service. This was remedied by the Overman Act of May 18th, 1917, which authorised the President to organise such army services as the emergency might require. It was under the authority of the Act that the World War service was organised.

Chapter XXXIV.—The First Thousand in Khaki

In October, 1917, it was announced that the commissioning of veterinarians in the Veterinary Reserve Corps was suspended, and a list of 777 officers, all second lieutenants, assigned to active duty up until that time, was published. At that time, veterinary officers belonged to four different organisations—Veterinary Reserve Corps, Veterinary Corps National Army, Veterinary Corps U.S. Army (veterinarians in the Regular Army) and the National Guard. By the closing weeks of the year 1917 the war was a topic of all-stirring interest everywhere and, of course, to veterinarians both in and out of the army. The list of promotions published in November occasioned much bitterness and a storm of protest.

Chapter XXXV.—Consolidation of Gains

Major McKillip's organisation (Veterinary Hospital No. 6) was the first complete hospital unit sent to France, where it arrived in April, 1918, or long after the A.E.F. had procured over 60,000 horses and mules, and had allowed an unusual amount of raging contagions to spread amongst them. In February, 1918, each division sent overseas was provided with its full complement of veterinary personnel. Each division also had a trained mobile veterinary section, consisting of a commanding officer and 21 enlisted men. By March, 1918, the Veterinary Corps rapidly improved. Mange was already threatening to unhorse the expeditionary forces in France and the half-organised veterinary service was making superhuman efforts with meagre accommodations to control the disease with dipping vats, sulphuration chambers, and hand treatment. Mange was the greatest single menace to the animals of the World War. One of the major misfortunes of the veterinary service of the World War was the undeniable fact that equipment, assembled with great care and detail by units organised in the United States, was lost through the disorganised transoceanic shipping and never again connected up with the organisation. The veterinary service of the combat troops operated with equipment procured from the French and British, notwithstanding that much of our own was stacked somewhere on overseas docks or in warehouses.

Chapter XXXVI.—New Policies and a New Director

The war was affecting not only the veterinarian in army service, but also those in civil occupations, and of the latter none more than those conducting veterinary schools.

In the spring of 1918 the Surgeon General issued a statement that after June 30th, 1918, no veterinary graduates would be eligible for commissions in the army unless from a college maintaining a minimum entrance requirement of at least two years' work in an accredited high school or its equivalent in academic training, this to be demonstrated by examination; and after June 30th, 1919, this minimum entrance requirement would be raised to four years' high school work.

There is no denying that the World War was the downfall of the proprietary veterinary colleges, which up to that time had furnished the large majority of our college-trained veterinarians, and that the action of the Surgeon General was the starting point of a reform which might have taken years to bring about through civilian influences. From the time veterinarians were first commissioned in large numbers in the Reserve Corps, they had looked forward to the appointment of one of their number as Director of the Veterinary Corps. In the early spring of 1918, the rumour became current that on May 1st Lieut.-Colonel Marshall would be promoted to Colonel and be made head of the veterinary service; but the months dragged on and this action was not taken. In July, 1918, the Veterinary Corps consisted of one lieut.-colonel, 47 majors, 96 captains, 395 lieutenants and 966 second lieutenants, a total of 1,505 commissioned officers and 9,000 enlisted men. The authorised strength of the Veterinary Corps under G.O. No. 130, October 4th, 1917, which authorised one veterinary officer and 16 enlisted men for each 400 public animals, was 18,000 officers and men.

Chapter XXXVII.—The Summer of 1918

Examinations for commissioning veterinarians in the Veterinary Reserve Corps, which had been discontinued August 27th, 1917, were resumed on August 1st, 1918. There were, at the time, about 1,500 veterinarians on active service, but it was thought that many more would be needed. In September, 1918, a ruling of the Comptroller General that "The appointment or promotion of veterinarians to the rank, with pay and allowances of major, is not authorised by existing law" attracted much attention and caused a great deal of disappointment, not so much because of the loss of rank and pay that it entailed for some 76 veterinary officers, but mainly because of the lack of appreciation of the Veterinary Corps and the splendid work it had done that it indicated.

A report of overseas veterinary hospitals published in this country showed that 80 per cent. of admissions were due to mange and 10 per cent. to lymphangitis. The remaining 10 per cent. were disabled from other causes ranging in importance in the following order: quittor, lacerations, abscesses, fistula, cellulitis, scratches, poll-evil, roaring, canker, hernia and gonitis. A detail of specifications for the guidance of purchasing boards and the duties of veterinarians in connection therewith are given under this chapter.

Chapter XXXVIII.—When Hostilities Ceased

With the coming of November and the Armistice, veterinary interest changed sharply from the army to the field of practice. Point is made of the usefulness of the cavalry horse on the Western Front, and that cavalry amply justified its existence by the supreme importance of its accomplishment when the moment for its use finally arrived. The most glamorous chapter in the whole history of the war is the record made by the Italian cavalry in the closing weeks. Scarcely less spectacular were the cavalry operations of General Allenby in Arabia and Palestine.

In November, 1918, a report to the Quartermaster General showed that there were horses and mules at remount depôts, forts, posts and garrisons in the United States, in transit to and from these places, in France, and on board ship in transit to France, aggregating 113,725 cavalry and riding horses, 186,348 draught horses, 144,611 draught mules, 17,298 pack and riding mules, and 15,280 unclassified animals, a total of 477,262 animals on hand at that time. There were on hand with the A.E.F. in France on December 25th, 1918, a total of 191,631 animals. This total included 26,023 cavalry horses, 109,528 draught horses, 48,614 draught mules, and 7,466 pack and riding mules. The total loss overseas to December 25th, 1918, amounted to 42,311 animals, which included 36,189 horses and 6,122 mules.

In all times, the strength and thrift of tribes and nations have oscillated with the well-being of their domesticated animals. One seeks in vain for a better example of human stupidity in governmental administration than the *laissez faire* invasion of scientific veterinary medicine that flared among the American people during the first quarter of the twentieth century and set in reverse motion the operation of a profession whose work in conserving an indispensable possession of the nation has been pointed out in all parts of the world as one of the outstanding achievements of modern times. Following the Armistice there was widespread demand for demobilisation in all branches of the army, and veterinary officers were no exception to the general rule in besieging the War Department for discharge and petitioning Senators and Representatives from their home districts to bring this about. Demobilisation, a stupendous task, began at once. By the end of the year, about 400 veterinary officers, who had urgent reasons for returning to civil life, were discharged, but the large number of animals the army possessed and the inevitable delay in disposing of them prevented any general discharge of the veterinary personnel.

Chapter XXXIX.—Demobilisation Gains Momentum

The United States Department of Agriculture issued orders prohibiting the return of horses from France except under quarantine restric-

tions: that caused the War Department to decide to return no public animals, and altogether only a few private mounts were returned. It is a tribute to the efficiency of the Bureau of Animal Industry that no foreign diseases of horses were introduced into the United States by the animals sent to France or purchased abroad. With the demobilisation of the veterinary service proceeding apace, army veterinary problems shifted from achievements and disappointments in the past to preparations for the future, and everywhere was discussed what should be done when the veterinary service should be reorganised, as it appeared inevitable that it would be. In 1920 (June 4th) the law creating the present organisation was enacted by the Congress. The veterinary service was definitely, and in all probability permanently, placed in the Medical Department.

Chapter XL.—Veterinary Training Schools

The veterinary corps organised four training schools for its personnel during the War—one for enlisted men at the Medical Officers' Training Camp, Fort Riley, Kas.; one for officers at Camp Greenleaf, Ga.; one for food inspectors at Chicago, and one for organising, equipping and training veterinary units for overseas service at Camp Lee, Va. The School for Meat and Dairy Inspectors at Chicago afterwards became the Army Veterinary School, Army Medical Centre, Washington, D.C., where it still functions. The training at the school at Fort Riley, Kas., included courses for horse-shoers, cooks, clerks, veterinary technicians, and non-commissioned officers. The school at Camp Greenleaf was planned to graduate 100 veterinarians monthly. The Veterinary Training School at Camp Lee, Virginia, was organised in April, 1918, to organise, equip and train oversea units. A total of 393 officers and 7,968 enlisted men passed through the school. There were organised, equipped, trained and sent to France 15 veterinary hospitals each consisting of seven veterinary officers and 300 enlisted men; one base veterinary hospital of four officers and 144 enlisted men; six corps mobile veterinary hospitals of two officers and 35 enlisted men each; three army mobile veterinary hospitals of four officers and 144 men each.

Chapter XLI.—Army Food Inspection

There was one department of the veterinary service of the army whose work was satisfactory to everyone—the meat and dairy products inspection service. The service accepted full responsibility for the quality and condition of meat and dairy food products supplied to the army and discharged it with a degree of skill and fidelity that afforded complete protection to the health of the troops. An idea of the immensity of the task that confronted the meat inspection service may be gained from the following figures showing the monthly increase in the value of the meat products purchased at Chicago. In April, 1917, it was $304,000; in May four times as much, $1,275,000; in June nearly $3,000,000; by August it was more than $5,000,000—more than 16 times the amount in April. By October purchase had increased to $8,500,000. In February, 1918, the inspection of butter was taken over by the veterinary service. This work increased, as had the inspection of meat. In September, 1918, alone, the veterinary service graded, weighed and certified for payment butter having a total value of $2,881,226, and more than 3,000,000 lb. of cheese. Summarising the service rendered by the veterinary corps it seems appropriate to call attention to the fact that the commercial value of the property "inspected and passed" during the World War emergency, including food, horses and mules, exceeded half-a-billion dollars and that notwithstanding the rapid expansion of the service from practically nothing to a creditable organisation, no complaint or charge of technical inefficiency can be uncovered either in gossip or in record.

Chapter XLII.—Army Veterinary Laboratory Service

Four days after the regulations were approved by the General Staff, Dr. S. H. Gilliland, well-known bacteriologist of Pennsylvania, was commissioned with the rank of major and directed to report to the Surgeon General for the purpose of planning and establishing a laboratory service in the Veterinary Corps. Arrangements had been made with the University of Pennsylvania School of Veterinary Medicine for quarters in which to establish the first laboratory. From this departure there was organised an efficient and useful laboratory service which was not only continued during the period of the war but which has become one of the permanent features of the Army Veterinary Service. The Philadelphia Laboratory also served as a training unit for veterinary officers and enlisted men who were to be assigned to the laboratories. Further, the Philadelphia Laboratory took over the task of manufacturing mallein for the army from the B.A.I., and provided millions of doses of this biological product. In January, 1919, when Major Gilliland retired to private life, Captain Kelser took command of the Philadelphia Laboratory. The laboratories did thousands upon thousands of complement-fixation and agglutination tests for glanders; large numbers of tests were also made for dourine. It was also at the Philadelphia Laboratory that the army started its equine infectious abortion work and produced the bacterin which is still employed with great success in controlling that

infection at remount depôts. In March, 1919, the laboratory at Philadelphia, including all supplies, equipment and personnel, was moved to Washington, D.C., and set up as a permanent organisation in quarters provided for it at the Army Medical School. Thus came into being the first permanent United States Army Veterinary Laboratory. The present Department of Veterinary Laboratories of the Army Veterinary School—an outgrowth of the Philadelphia Laboratory—is as fine a veterinary laboratory as exists anywhere.

Chapter XLIII.—The Fifty-Year-Old Battle with Congress Resumed

So much has been said of the anxiety of the great majority of emergency officers in the army to obtain discharges at the earliest possible moment following the Armistice that it might be inferred that such was the desire of all. However, that was not the case. A considerable number desired to remain on the permanent military establishment. It was believed that the Regular Army would not be reduced to the small number maintained before the War, and even under the Act of June 3rd, 1916, there was authorisation for a considerably larger number of veterinary officers than there were veterinarians in the Regular Army. As the number authorised under the Act of Congress of June 3rd, 1916, was 118 and as there were but 62 veterinarians in the Regular Army at the beginning of the War, and the retirement for age and physical disability and resignations had reduced the actual number to less than 40 per cent. of the authorised number, there was a practical certainty that some 70 or more new officers would be required for the Veterinary Corps. A Press dispatch estimated that there would be a need for a minimum of 350 veterinary officers.

The Medical Service during the War had exceeded the expectation of the public and the Surgeon General enjoyed a great prestige and influence with the Congress. Almost unaided he was able to have changed the provisions, with respect to the veterinary service, of the Army Reorganisation Bill, which was entirely satisfactory to veterinarians both in and out of the army. The publicity of the achievements of the veterinary profession in the War probably helped to get the present Veterinary Corps of the army. The humane side of the veterinary military service is one to be kept eternally in the foreground, for when the lives of men are sacrificed by the thousand, the welfare of animals is apt to be overlooked. Of no little importance to the army and civilian veterinary service are the exclusive veterinary commercial laboratories that came into existence during or since the World War, and now assure both the army and civil population an ample supply of medicinal, biological and surgical material during a future emergency, not to mention a personnel trained in the art of production.

Chapter XLIV.—General View of the Veterinary Service in the American Expeditionary Forces

Where the animal transport service of the American Expeditionary Forces came from, what it did and how it accomplished its purpose is not common knowledge. The procurement of 173,000 animals, chiefly from foreign countries, and the handling of them in a foreign country, are unknown quantities even in the army schools where veterinary officers are trained.

The Make-up of the Overseas Forces.—The forces were divided into three grand divisions:—

(1) *General Headquarters.*—These were at Chaumont, a military post of the French Army located behind the Lorraine sector of the Western Front.

(2) *The Service of Supply.*—This service was officially designated the S.O.S., and was divided into three divisions for administration:—

(*a*) The base section with headquarters at Brest.

(*b*) The intermediate section with headquarters at Nevers.

(*c*) The advance section with headquarters at Neufchateau, and later at Nogent-en-Bassigny.

The duty of the S.O.S. was that of supplying material, men and animals to the entire expedition. The general headquarters were at Tours on the Loire, 250 miles from G.H.Q. Such important offices as that of chief quartermaster, chief remount officer, chief surgeon, chief veterinarian, etc., were located at these headquarters.

(3) *The Combat Troops.*—The first detachment of American troops arrived in France on June 27th, 1917, and others soon followed. By October 30th, 1918, there had arrived in France 76,800 officers and 1,790,893 men.

The First Veterinary Hospital.—A troop of the 3rd Cavalry and detachments of infantrymen training in adjacent territory was the personnel assigned to the first veterinary hospital of the A.E.F. (Neufchateau) when it was ready for operation. There was no veterinary personnel in France at that time except a few officers. At this period we estimated the animal strength of our troops as being somewhere between 20,000 and 60,000. A full equipment for a veterinary hospital with a capacity of 1,000 animals was obtained. Major Hill gave excellent help in equipping the hospital. The co-operation of the 3rd Cavalry was one of the bright spots of the veterinary service in France during that early period. The upshot of it was that in two weeks Neufchateau was a real veterinary hospital, receiving horses by the

score daily and taking care of all their medical and surgical needs.

Division Veterinarians. — The division veterinarian is the bulwark of the animal conservation service of an army. He is comparable to a clinician with a staff of assistants watching the serviceability of groups of animals in different hands doing different kinds of work. The chapter concludes with a complete list of names forming the cadre of the overseas veterinary corps of the World War.

Chapter XLV.—Obstacles Met by the American Expeditionary Forces

To comprehend the difficulty of organising any of the arms or services abroad during the World War, one should have an insight into all the conditions under which a legion of 2,000,000 untrained men were whipped into a combat force. Our entrance into the War turned the balance of power—means, morale and men—to the side of the Allies, and it turned the emotions of the good people of France and England from despair to courage. It is true that by 1917, after three years of staggering losses which more than decimated the young men of three nations, the War had become not only a stalemate to the armies, but also a moral defeat to the civil population behind them. While the Germans were growing somewhat stronger and taking on a new courage through the reinforcement of their armies in France by the arrival of divisions from the Eastern Front, following the Russian Revolution, the coming of the Americans gradually shifted the balance of man power and morale to the side of the Allies.

The Growth of the A.E.F.—The oversea force grew from 35,043 in September, 1917, to 1,790,823 during the next twelve months.

The Number of Animals of the A.E.F.—In round numbers the total number of animals of the American Expeditionary Force is given as 173,000. General Hagood, Chief of Staff of the S.O.S., places the total number as at October 30th, 1918, at 165,366 horses and mules of all classes. Of these 123,972 were with combat corps and divisions. But, in view of the fact that the enormous losses at remount depôts, veterinary hospitals, evacuation stations and troop units in field and station could not have been deducted on that date, the figure does not signify that many were then in use. During September and October 12,112 were received from the French, 2,917 came from home, 7,666 were purchased in Spain, and 1,900 were shipped from England. On November 1st the A.E.F. were expecting an additional 40,000 animals from Spain and Morocco, but none of these arrived at the Front during the hostilities; in fact, the grave shortage of horses and mules continued to the end. Six tables are quoted under this chapter. Table I shows the source of the animals of the A.E.F.; Table II shows the animal strength of the Divisions of the First Army; Table III shows the number of animals evacuated from units to veterinary hospitals; Table IV gives the casualties among veterinary officers; Table V the casualties among enlisted veterinary personnel, and Table VI states the animals officially reported by weeks from September to the end of December under the headings animal strength, percentage sick, evacuated, dead, killed, and the total loss.

Chapter XLVI.—Conditions of American Animals Incite International Investigation

During December (1917) the American troops evacuated between 300 and 400 animals to the Neufchateau hospital, then operated by the French Veterinary Corps. When taken over by the Americans it was found that these animals were mostly incurable wrecks. A survey made of them when the Americans took over the hospital revealed 107 mangy cases of incurable paraphimosis, 67 mangy cases of incurable ulcerative lymphangitis, and more than 300 cases of generalised sarcoptic mange. The survey showed that only the totally incapacitated had been hospitalised. There was no plan in operation, or thought of, for the hospitalisation of ailing animals with the object of their early return to service. The result was the rapid spread of contagions among the animals of the troops. The incidence of contagious diseases among the American animals was found to be running dangerously high. The safety of the other armies and the agricultural industry of France were threatened. Practically all the French veterinarians were in the army. The civil population, remote from troops, had little veterinary protection when diseases broke out among its animals. This chapter deals with the activities of the Franco-American liaison mission and inspections of the 1st Division, 5th Division, and of the 42nd Division. From the very beginning, the mission's work started the movement that led to the adoption of better regulations for the corps. It also led to the realisation that G.H.Q. was in error when for so many months it had not organised a veterinary corps. Higher rank was also considered important to professional men, and veterinary officers from civil life were warned against accepting responsibilities without sufficient rank to overcome the inhibitions of military gradation, in a non-existing veterinary service in the army of 1,000,000 men and 100,000 animals without regulations, and among army, corps and division staffs, service-minded generals and growling colonels who thought of their chief veterinarian as a man to drench the horses for colic and dig shrapnel out of wounded mules.

There was nothing encouraging in sight. The United States Army was going into action on a large scale just as it had lived—without a veterinary corps, and commanded from headquarters to platoons by officers unaware of the omission. Failure could be no surprise. It would have been far-fetched to have expected even the reasonable degree of success attained during the months ahead.

Chapter XLVII.—A Veterinary Corps Forced Upon the American Troops in France

The Pershing plan for operating the veterinary service had failed by the middle of July (1918). Under the lashings of the French Government for the disgraceful animal situation that the Americans were tolerating unheeded, the General Staff had flopped from one set of experimental regulations to another until finally, in despair, it dumped its 100,000 mismanaged animals into the lap of the Medical Department for the department to straighten out. A wire went to Washington asking that a veterinary officer with "administrative ability" be sent over to serve as chief veterinarian, and a chief veterinarian was immediately appointed for the combat troops—the First Army—which was then in a formative stage. There had been no organised veterinary service connected with the American troops as they fought on the Marne during the preceding three weeks and, as a consequence, the animal situation beggared description. The shortcomings of the American troops in this respect constituted such a serious display of inefficient organisation that it brought protests from all sides. During the famous "Battle of Chateau Thierry" the unconventional veterinary system of the General Staff, detachments of pseudo-service, evacuated several hundred half-starved animals to a railhead without first arranging for cars to transport them. In short, the first attempt in American history to evacuate military animals on a large scale had been a fiasco, a blur on the American escutcheon, a reflection on the military scholarship of American commanders and pretty much of an insult to the American medical and veterinary professions. The Marne battlefield was unfavourable for animals, and the animal casualties of the Marne were a total loss; although 80 per cent. of them could have been returned to the army had a veterinary service been organised.

Chapter XLVIII.—Separation of the Veterinary Service from the Medical Department

The outstanding veterinary event of the World War was the summary separation of the service from the Medical Department by the General Staff and the placing of its operations within the remount division of the Quartermaster Department. General Orders No. 39, A.E.F., September 17th, 1917, effected the separation, and General Orders No. 139, August 24th, 1918, returned it to the Medical Department at a time when the animals were in a dreadful state. Major Louis A. Klein, Veterinary Corps, National Army, and First Lieutenant Alfred L. Mason, assistant veterinarian, proceeded to France to report to the commanding general for consultation in connection with organising, equipping and supplying the veterinary department of the American Expeditionary Force. The General requested Major Klein to draw up a memorandum covering the details of his recommendations. When Section 5 of General Orders No. 139 was issued, August 24th, 1918, it practically adopted all that Major Klein had recommended. The three paragraphs of the section read: (1) The Veterinary Service of the A.E.F. will organise in accordance with Special Regulations No. 70 War Department 1917; (2) A Veterinary Division will be established at the office of the Chief Surgeon, A.E.F., at the head of which will be a Chief Veterinarian who will be charged under the Chief Surgeon to administer the veterinary services; (3) The organisation of the veterinary units will be prescribed in the Tables of Organisation now in force. Thus closed the long controversy between the Surgeon General and the General Staff of the American Expeditionary Force.

Chapter XLIX.—American Operations on the Marne

To provide for these a veterinary hospital was quickly established in the empty remount depôt at Claye Souilly by the First Army. It was vacated by the French and turned over to the Americans for use as a veterinary hospital on the recommendation of the Franco-American veterinary liaison mission. Between August 8th and 13th, 1,143 animals were evacuated to this hospital. Comment is made that the veterinary service, now about to undergo organisation as the army fought, like other special services, had few experienced officers. Inspections had shown the unsatisfactory condition of the American animals both at the Front and in remount depôts: the remount depôts of the interior had no hospitals where animals affected with contagious diseases could be isolated. At the Front there were no veterinary hospitals nor was there any liaison with foreign armies. It was under this state of affairs that the American Expeditionary Forces went into the greatest military operation of all time—the "Battle of the Western Front" of the summer and fall of 1918. The ghastly experiences of the I Corps on the Marne; the complaints of the French Government about the poor horsemanship of the Americans, displayed all over France; the open charges that the Americans

were not qualified to command their own forces; the shortage of animals and the closed sources of procurement were factors that turned generals and field officers towards the importance of developing an animal conservation service. The American Expeditionary Forces can never shift the responsibility for the animal debacle on the Marne, and although the wise French generals had laid plans for establishing a hospital service for animals by turning over an excellent remount depôt for the purpose, troop commanders, the General Staff, or whoever was responsible, did not take advantage of them. In the annals of the Veterinary Corps, "The Americans on the Marne," must be reported as a misfortune of American arms on a battlefield.

Chapter L.—The Battle of St. Mihiel

Until St. Mihiel—September, 1918—a veterinary corps did not exist in fact. Our most capable staff officers knew little of its make-up, its operations or its purposes. Conserving animals for economic or humane reasons or relieving troops of disabled animals was an unknown chapter in our military educational system. Experience of the I Corps of the Marne, two weeks before the mobilisation for St. Mihiel began, had demonstrated that something of the sort should have been included. So, when the I Corps suddenly became the First Army, to be aggrandised by several additional corps for a much larger operation in the St. Mihiel sector, a chief veterinarian for the new unit was appointed and directed to organise and operate such a service. The officer selected to carry out the project was designated "Chief Veterinarian, First Army A.E.F." Major L. A. Merillat was the officer appointed, and he had under him I Corps Major M. E. Knowles; IV Corps Major W. Reid Blair; V Corps Major Chas. E. Clayton. The hospital accommodations available to the First Army at this time were: Veterinary Hospital No. 6 at Neufchateau, capacity from 1,000 to 1,200; Veterinary Hospital No. 2 at Treveray, capacity 1,200 to 1,800; Veterinary Hospital No. 3 at Neuilly L'Eveque under construction, capacity 1,000. Extreme total capacity, 4,000. Lieut.-Colonel D. S. White had been appointed Chief Veterinarian A.E.F. *vice* Major William P. Hill, who had held that position since March, 1918.

At this moment the First Army, comprising 550,000 men and approximately 70,000 animals, was going into an important action in a few days, but it had no army veterinary personnel except a chief, an assistant, and two clerks. From a hasty survey, it was estimated that the evacuation of 4,000 animal casualties would have to be provided for. To handle these the Chief Veterinarian, A.E.F., 280 miles from the scene of preparation, contended that Army Veterinary Hospital No. 1 (two officers and 68 enlisted men) that he had sent would be sufficient. He had no plans for taking the evacuated animals off the army's hands at the collecting stations. The predicted number of animal casualties requiring evacuation (20,000) for the period to November 15th, was less by 3,000 than the actual number that developed. Twenty-three thousand were evacuated from the Meuse-Argonne and the St. Mihiel operations. Although increasing hospital capacity was paramount, the First Army went into action at St. Mihiel before any sufficient attempt was made to increase it. An official Memorandum of the Veterinary Service during the St. Mihiel operation (August 15th, 1918, to September 17th, 1918), signed by Major L. A. Merillat, Chief Veterinarian, First Army A.E.F., is given at the end of the chapter. In the study of a service of the First Army it should be remembered that while the battles of St. Mihiel and Meuse-Argonne are described as different operations, in point of time they were continuous. The needs estimated for the one applied to both.

Chapter LI.—The Meuse-Argonne Offensive

When Amiens, Chateau Thierry and St. Mihiel had been reduced, the end of the World War was but a matter of days. The marches of the First Army, and of its predecessor, the I Corps, would have taxed the working capacity of the best veterinary service. The operations of the untrained A.E.F. Veterinary Corps are comparable to those of the French and British forces during the campaigns of 1914 which baffled the veterinary services of those armies and caused losses of animals of unexpected magnitude. To write a story about the veterinary service of the First Army, without mentioning the part played by the remount personnel assigned for the evacuation of animals would be ungrateful, and the omission of a pertinent fact connected with the animal transport service of the World War in France. Because a sufficient personnel of its own was not available to the veterinary service and only a few animal replacements were arriving in the army zone, the only sensible thing to do was to concentrate as much as possible on horse care, medical treatment in the field and evacuation of the unfit in order to keep divisions mobile. Under the new arrangement, it became possible to intensify veterinary service in the units and thus to preserve as much horse strength as possible. For example, mange was kept under reasonable control by concentrating mangy animals in certain units and providing hand treatment for them. Glanders was controlled by frequent mallein tests, and the corps and division remount officers were admonished by the remount office to pay special attention to feeding, watering, overloading and shelter. By this means the army was kept mobile in

N.V.M.A. Divisional Reports

YORKSHIRE V.M.A.*

ANNUAL MEETING AT LEEDS

The President's Address

The Annual General Meeting of the above Division was held at the Hotel Metropole, Leeds, on Friday, January 31st, 1936, at 3 p.m. The President, Major D. S. Rabagliati, O.B.E., B.Sc., F.R.C.V.S., D.V.S.M., occupied the Chair, and the following members were present: Lieut.-Colonel H. G. Bowes, Lieut.-Colonel J. A. Dixon, Major C. Holland, Captain J. W. Procter and Messrs. J. Clarkson, A. D. J. Brennan, J. M. McKellar, A. J. Adams, J. W. Davidson, A. R. Withers, G. Whitehead, J. Ritchie, W. Halstead, H. M. Salusbury, A. Cruickshank, W. J. MacGregor, G. E. Sampson, H. W. Good, E. F. Angler, W. A. Campbell, A. H. Watson, J. O. Powley, R. S. Smyth, W. R. McKinna, E. Ackroyd, F. Halliday, F. C. Scott and the Hon. Secretary (Mr. E. F. McCleery). Messrs. D. D. Canning and E. Heeley were present as visitors.

Apologies for inability to attend the meeting were received from Messrs. Brekke, Tyreman, Dunn, A. J. McCarmick, A. McCarmick, Professor Buxton, Dr. Bradley and Mr. Noel Pillers.

Death of H.M. King George V.—Before commencing the business of the meeting, the President referred in fitting terms to the great loss which the profession and the Empire in general had sustained in the death of His late Majesty, King George V, and those present rose and stood in silence as a token of respect to his memory.

The minutes of the last meeting, having been published in *The Veterinary Record*, were taken as read and adopted.

Correspondence.—A letter was read from the Secretary of the Royal Sanitary Institute with reference to the appointment by the Society of a delegate to the Health Congress to be held at Southport from July 6th to 11th, 1936, and on the proposition of Mr. Halstead, seconded by Mr. MacGregor, it was resolved that the President or his nominee should represent the Society at the Congress mentioned. The Secretary read a letter from Mr. A. Robertson, recently stationed at Bradford, who stated that owing to his removal from that city to the South of England, he was forced to resign his membership of the Society. His resignation was accepted with regret. A letter from the General Secretary with reference to the payment of the expenses of delegates attending the Council meetings was read. The contents of this communication were noted and the Secretary was instructed to inform the General Secretary that the Yorkshire Division have paid the travelling expenses of their representatives for some years. A further letter from the General Secretary was read regarding a resolution on the matter of the acceptance of certain advertisements in *The Veterinary Record*. The meeting expressed dissatisfaction with the action taken by the Editorial Committee and the N.V.M.A. Council on the matter, and instructed their representatives to raise the matter at the next Council meeting of the Association.

Election of Members.—On the proposition of the Secretary, seconded by Mr. A. H. Watson, the following gentlemen were elected members of the Society: Messrs. A. J. Adams, Halifax; J. O. Powley, Harrogate, and A. R. Withers, Harrogate. Mr. E. Heeley, of Huddersfield, was nomniated for membership of the Society.

R.C.V.S. Council Election.—The nomination by the Division of a representative on the Council of the Royal College of Veterinary Surgeons was then considered. The Secretary read letters from Dr. Bullock and Captain Rider, on the matter, and after consideration, it was proposed by the President, seconded by Mr. G. E. Sampson and unanimously agreed that Mr. A. H. Watson be requested to allow himself to be nominated. The Secretary was instructed to inform the Lancashire and the North of England Divisions of the nomination in order that a joint circular might be issued as on previous occasions.

Trustee.—The Treasurer reported that Mr. A. McCarmick wished to be relieved of the office of Trustee of the Society. The President and members received this information with very sincere regret, several members speaking in

* Received for publication February 11th, 1936.

spite of the animal shortage. This experience may be taken as a proof that the care animals receive during a field operation is as indispensable to the successful maintenance of an animal transport service as is evacuation of the unserviceable. Ours was a service thrown into an action of extraordinary magnitude, not only unprepared for the task undertaken, but also without the guidance of competent regulations. On November 12th the Meuse-Argonne battlefield told more than all historians will ever write to the end of time. What all of this meant to the United States is as difficult to understand in 1935 as it was on that mournful day of 1918. To the veterinary profession of our country it meant and shall for ever mean that on this dark and cruel landscape the first veterinary corps of our army proved its worthiness in the most difficult military operation of American history.

(To be concluded.)

very high terms of the vast amount of work which Mr. McCarmick had done for the Society, and on the proposition of the Secretary, seconded by Colonel Bowes, it was unanimously agreed that he be elected an Honorary Associate of the Society. Colonel Bowes was unanimously elected as a Trustee in place of Mr. McCarmick.

Donations.—The allocation of the balance of £6 4s. 9d. from the 1935 Dinner and Dance was then discussed and on the proposition of Mr. Watson, seconded by Colonel Bowes, it was unanimously decided that donations, of three guineas each, be forwarded to the Victoria Veterinary Benevolent Fund and the National Veterinary Benevolent and Mutual Defence Society.

On the proposition of Colonel Dixon, seconded by Mr. MacGregor, it was agreed to forward a donation of two guineas to the National Horse Association.

N.V.M.A. Congress.—The President then referred to the matter of an "At Home" in connection with the N.V.M.A. Congress to be held in Scarborough from September 14th to 18th next, and after discussion, it was unanimously agreed, on the proposition of Mr. Salusbury, seconded by Mr. Brennan, that such a function be arranged, details to be left in the hands of the Provisional Committee.

Presidential Address

The President (Major D. S. Rabagliati) then delivered his Presidential Address.

Following introductory observations, the President said:—

I have thought of several themes for this address, but in the end have come back to what is really a very orthodox one, namely, to give you a sort of review of matters of professional interest that have taken place during the past year. I have been largely influenced in this by circumstances, for on looking back it seems to me that there has been an extraordinary number of happenings, and I venture to think that it is a long time, even if it has ever occurred before, since there has been so much of interest to record in twelve short months.

Before proceeding further, I must thank members of the Society for the honour you have done me and the trust you have put in me in placing me in the Presidential Chair. I remember at one of the congresses of the "National," I think it was at Folkestone, a friend of mine who is one of our scientific workers, remarked to me that most, if not all, veterinary speakers seemed to apologise for speaking at meetings and at the outset of their remarks, discoursed on their own unworthiness. I must not give him the opportunity of saying I have stumbled into the same pitfall, but I would assure you, as I told you when I was inducted, that during my year of office I will do my best to make it a very successful one, knowing as I do that I shall have the help and support of the members. As a profession we are always most modest in asserting ourselves, which may account for our not having received all the "kudos" to which we feel we are entitled, but perhaps this is a good fault and I would not apologise for it. This, however, is no reason for the younger members of this Division being afraid to come forward and give their colleagues the benefit of their experience in the form of a paper or otherwise. It is not fair to leave all the talking to the older men or to get the impression that we must bring in someone from outside at every meeting. I have gone through the list of papers we have had in this Society since the beginning of 1927 and find that apart from the few meetings where "interesting cases" or "morbid specimens" have been discussed in lieu of a paper, only five members of our own Division (and they were all senior men), have contributed the paper of the day; other of course than the presidential addresses. All other papers have been given by speakers from outside. I do hope that some of our younger men will come forward; for one of the chief objects of these meetings is to give every one the chance of being heard by his colleagues. This is an age of youth being given important posts and we must not be behind the times in this. Let it not be thought that I am against having outside talent, for it is an excellent thing to have it from time to time, but it should not be made an excuse for our own members to shirk their responsibilities. I have also accepted this Presidential Chair—which in the past has been occupied by many distinguished men, many of whom have, alas, passed away—in the full knowledge that I shall have no worries over finance, which is so well looked after by our treasurer, Mr. Scott, nor over matters of administrative detail which are seen to by our secretary, Mr. McCleery. This is going to be a most important year for "The Yorkshire," in that the Annual Congress of our central body is to be held at Scarborourgh, and I would like to stress how much we are indebted to our secretary for so nobly taking on the duties of "local secretary" to the Provisional Committee in addition to his other work. This is no sinecure and he has the difficult and anomalous task of being the "local secretary" and yet not being "local," for as we are all aware, he lives in Leeds while the Congress is to be held in Scarborough. Doubtless his Irish blood alone makes this possible!

To commence my review in chronological order for the year; the first matter of interest was the publication by the Ministry of Agriculture of the "Attested Herds Scheme." Although the scheme was published in January it only became operative on February 1st, 1935.

The scheme was an excellent one in theory and was well worked out scientifically, but as you all know was severely criticised by the profession and by agriculturists as a whole. Despite its good points, we must now admit, as was forecasted at its inception, the scheme has not been the success that was anticipated by its promoters. The conditions although scientifically sound were too severe for all practical purposes, and the profession felt, rightly no doubt, that neither the practitioners nor the county or municipal officers were fairly treated under the conditions laid down. The practitioners in theory had an excellent opportunity of freeing herds from tuberculosis, but as the farmers—even those who could—have not taken up the scheme except in almost negligible numbers, the profession has not benefited. Great resentment was also felt that should a practitioner free a herd so as to allow it to be placed on the roll of "attested herds," he would then lose all interest in it subsequently, both financially and otherwise. This has not been to the advantage of the scheme. Moreover, the county and municipal officers have no finger—not even a little one—in the attested pie. Despite this criticism, I look upon the scheme as of the utmost importance, for it is a beginning, a definite beginning, of some Government action towards the eradication of tuberculosis. At the end of last year there were about 55 herds on the attested roll in England and Wales averaging 38 head per herd and 40 herds on the Scottish list with a rather higher average per herd—but these are not enough. The Ministry have now remodelled the scheme by allowing herds with a low percentage of reactors to enter, and also have promised some financial assistance to farmers by paying part of the cost of preliminary tests and by giving a grant towards the replacement of reactors. While this is a considerable improvement and should be of assistance to veterinary practitioners, it is felt that the grants offered are hardly adequate. Whether the amended scheme will materially add to the number of herds on the "attested" roll remains to be seen. It is still hoped that further amendments may yet be introduced to the benefit of the profession and thus I think of the community. The mere fact, however, that a definite scheme has been brought in and amended within a few months points to the importance the Minister places upon the objects of the scheme and the necessity he feels for furthering it.

The publication of the Cattle Diseases Report of the Economic Advisory Council in 1934 caused a great deal of discussion in our profession and as the result the Council of the N.V.M.A. passed at its January meeting in 1935 a suggested scheme for the improvement and the simplification of the veterinary services of the country. The chief points were the establishment of a Department of Animal Health under a Chief Veterinary Officer who was to be directly responsible to the Minister, the appointment of area veterinary officers whose duty it would be to co-ordinate the work of the county and municipal veterinary officers, the formation of a panel of as many practitioners as possible to carry out the executive work and the formation of regional veterinary laboratories in different parts of the country. Delegates from the N.V.M.A. had an interview with the officials of the Ministry of Agriculture and sent copies of the scheme to agricultural and other bodies. Although I was myself a member of the special committee which drew up the scheme, I cannot help feeling that it fell short in various ways. It was drawn up with great care and trouble in the honest endeavour to bring in as many sections of the profession as possible, and like many such endeavours, it probably really pleased nobody. This is neither the time nor the place to criticise it, but it is at the moment lying dormant, and may possibly be resurrected later on as a basis on which to open a further discussion or to build up a new system of veterinary administration.

As the result of negotiations between the Royal College of Veterinary Surgeons and the National Veterinary Medical Association on the one hand and the Ministry of Agriculture on the other, a new set of instructions has been issued by the Ministry to their advisory officers, who now work under the designation of "Veterinary Investigation Officers." Both the Royal College and this Association have been at great pains to arrive at some more practical system than that under which these officers have worked in the past and which have from time to time been the cause of friction between them and the practitioners of their districts. The Ministry of Agriculture has met these complaints in a fair and open manner and the new instructions issued to their officers are mainly the result of this joint action. The new scheme tries to bring about much more co-operation between the investigation officers and the practioners and it is to be hoped that each side will abide by the new spirit which these instructions inaugurate, and that mutual help and so mutual esteem will be the result.

The year which has passed was remarkable above all things for the Silver Jubilee of His late Majesty, King George V, and our profession were behind none in their expression of loyalty to the Sovereign. His untimely death has come as a great shock to us all and it is difficult to realise that the Empire has him no longer. We are, indeed, fortunate in our unbroken belief that his successor King Edward VIII, who is already an Honorary Associate of our profession, will uphold all the dignity and traditions of his revered father. The new King's

love for animals and interest in our work are well known and there is no reason to suppose that they will grow less because of his more exalted position. The Jubilee was the occasion for looking back and taking stock of the changes that have taken place in our profession during the 25 years of His late Majesty's reign. The period, containing as it did the Great War, has been unique in many ways, and the veterinary profession has probably undergone as many and diverse changes as any profession and more than very many. It has had to meet the enormous development of motor transport, and it has seen a great increase in practice amongst the smaller animals, especially in that of the dog and the cat.

A much wider view is now taken of preventive medicine and there has been a great increase in veterinary public health, which can hardly be said to have existed previously. Along with this has taken place a considerable extension of veterinary research which has had more official backing, although the necessary funds for its upkeep are still utterly inadequate. As with any changes in a profession, some have profited and some have lost, but speaking generally, the profession is vastly more virile to-day than it was in 1910, and has earned a greatly enhanced position in public esteem. The whole profession is still in a transition period, but despite all, a new graduate need have no fear about finding employment if he or possibly even she is willing to work. There were those who foresaw that the institution of the five-year-course at our schools would spell the death-knell of our profession and cause the closing down of some of the teaching establishments, but what do we see to-day? The colleges are overflowing and so far there seems to be no falling off in candidates. I am told that there is a great dearth of men willing to take up private practice, which to my mind is a most deplorable feature and tends to allow of the almost unhindered increase of quacks and of the patent medicine vendor. Doubtless, the increase of municipal and other public appointments is to some extent responsible for this state of affairs, but I can never believe that it is wholly so. The depressed state of agriculture has had far more to do with this than some would allow, and with its improvement and especially the increase of the livestock industry along with the action of the law of supply and demand, things should again become more normal in a few years time. One can only hope that the number of students entering our colleges will not exceed the demand for the finished article, making due allowance for those who will never finish their course, for a glut of graduates with no prospect of reasonable employment would be a tragedy.

A most important event for the profession generally in England and Wales has been the introduction of the Accredited Producers' Scheme of the Milk Marketing Board. The scheme has been introduced without sufficient thought and preparation, but I am not here to criticise it. You all know the difficulties which have arisen in its administration, chiefly owing to different methods and different standards being adopted in different areas. The scheme has undoubtedly given a great impetus to whole-time appointments and most counties which had never gone in for the routine examination of milch cows have now appointed, or are about to appoint, veterinary surgeons for these duties. The scheme has brought the profession rapidly before the public, and whether the examinations are carried out by whole-time officials or part-time practitioners, it is the veterinary profession that must do the work. I would ask those who are rather prone to blame the whole-time men for any ills they may be suffering, to reflect for one moment that almost all the work they are doing is new work and except in a few cases was never done by the practitioner before. The administration of the Tuberculosis Order is probably that which causes the greatest criticism, but even this Order is very recent. Personally I cannot see that there is not sufficient work for the veterinary practitioner and the whole-time officer and if any new schemes for the further eradication of disease are developed, there will be more work to be done than men to do it.

The special committees appointed by our parent body to consider the possibility of work amongst the fur-bearing animals, on diseases of poultry and on veterinary parasitology, to mention only some, have issued reports which are well worth perusal even if one is not especially interested in these branches of study. A recent addition to our Divisions of the "National" is the Society of Veterinary Practitioners. This is a most active Division and one which was formed originally more or less as the result of so many whole-time appointments being made. Personally, I welcome any new member of our "National" family, provided that it is run on constitutional lines. Every section has a perfect right to stand up for its own interests, but in doing so must not be unfair to other sections, even if their interests at first sight appear to clash. Fortunately, practitioners sit side by side with research workers, whole-time county and municipal officers and even Government officials on the committees of our central body. At these meetings the difficulties which arise can be discussed and each side hear what the other has to say. One cannot deny that there has been a tendency for a breach to be formed in our ranks as the result of so many official veterinarians being appointed to whole-time posts, but if I have been able to read the signs correctly, any ill-feeling that may have been

engendered has during the last few months appeared to be dying down, thanks to common sense and good feeling on both sides. I feel certain that this is largely due to the meeting together of all sections of the profession on the committees of the "National." At the instigation of the Society of Veterinary Practitioners, the "National" have formed a committee to investigate what is commonly termed "free service" undertaken by the Government, local authorities or other societies. The committee consists of twelve members, half of whom are practitioners and half officials, teachers and scientific workers. Only by such co-operation can a fair and unbiased report be produced—which, if one must be published, it is hoped it will be. It would be most unfortunate if this or any other cause were to open up the breach once more. Only by sinking any differences which we may think exist amongst us can we claim our right and independent place in dealing with animals and animal products. Any split in our own ranks can only weaken our power of showing to the medical profession and other bodies our true and inalienable sphere in public health.

It is not every year that a small profession like ours can boast of a centenarian in our ranks. On August 7th, 1935, the late Dr. Griffiths Evans celebrated his hundredth birthday and was duly proclaimed and honoured by his colleagues. He was no nonentity passing his days in some backwash or obscure country village, but took his place in the front ranks of his profession, travelling and working abroad as all of us who have read the excellent account of his life which appeared in *The Veterinary Record* well know. Unfortunately, although he lived long enough to know and appreciate the honour done him by his colleagues, he passed away on December 7th, just four months to the day after his centenary. His long life and dogged personal character should be an example to us all and although we cannot all achieve his fame, or reach his age we can at least respect his memory and try to emulate his character.

One can hardly feel that a summary of the year's events would be complete without making a mention of the proposed ban on horse traffic in London and other cities. It is to be hoped that the protests which the suggestion has brought forth may be of some avail to avoid any such measures being taken, measures which it is more than doubtful would be of any real assistance in solving the problems of traffic congestion. They would most certainly cause serious loss to a section of agriculturists and others, just at a time, too, when the horse trade is showing some improvement. To me it is surprising that the threat has not been taken up more keenly by the profession, but perhaps this mechanical age has taken a greater grip on us than some of the older men can believe, or would wish to believe.

The Ministry of Health has issued a draft for a new Milk (Special Designations) Order, which it is expected will soon be published in its final form. Various deputations have been received by the Ministry from different bodies interested, amongst which was one from our Association, and no doubt the suggestions and criticisms made are now under consideration by the Ministry before it fixes on the final form of the Order. This new Order, should it go through in anything like its draft form, makes many changes from the 1923 Order. The chief and most fundamental change is that the authority to grant licences for the production of Certified and Grade A (T.T.) milk is transferred from the Ministry of Health to the local authorities, in this case the county council or county borough council as the case may be. I have heard considerable fear expressed that the practitioner may lose by this change in that the testing of cattle in such herds will be taken over by the whole-time staffs. Personally I cannot subscribe to this view, unless it is decreed that the testing is to be done free of charge to the farmer in order to stimulate the supply of tubercle-free milk. I can see no immediate likelihood of this in the meantime. Even if it were to come, I cannot think that it can be possible to do sufficient testing without the aid of numerous veterinary practitioners.

The transfer of the power to grant licences to the local authorities should be a great stimulus to the increase of tubercle-free herds. The Ministry of Health cannot be accused of doing anything to stimulate the desire of farmers to obtain licences and I cannot believe that the local authorities will be so lukewarm to the success of the new Order. An increase in such herds will be the means of putting greatly increased duties on the practitioners in freeing the herds from disease. One of the proposed conditions in the new Order is that all new cows admitted to a licensed herd unless they come from tubercle-free herds must be re-tested 60 days after their introduction to the herd. Considering the number of "flying herds" which will try to to comply with the Order, the amount of tuberculin testing will be increased enormously to the great advantage of the practitioner, for I cannot see the whole-time man being able to do all this work even if he wished! Another change made by the Order is the proposal to abolish one category of tubercle-free milk and have only "Certified" milk but of a standard of cleanliness similiar to that of the present Grade "A." Ordinary Grade "A" milk is to be abolished altogether and a new class of milk added, which is introduced to cover the milk produced under the Accredited Producers' Scheme of the Milk

Marketing Board. The coliform test for this milk is also to be dropped. Sanction is also given to pasteurise Certified milk, which, to my mind, is most unfortunate.

In one county at least it is found that the present holders of licences for Certified and Grade A (T.T.) milk, not being liable to levies from the Board, are now able to sell their milk at the same price as the retailers of Grade A milk and are competing with them to the detriment of the latter but to the advantage of the public. I understand that in the country generally there has already been a great increase in these herds and it is to be hoped that the Accredited Producers' Scheme may be the means of encouraging more and more producers to go in for tubercle-free herds.

I think that you will agree that events have not been stagnant during last year, and I am one who still takes a most optimistic view as to the prospects of our profession. In my opinion, the trend of events seems to show that steps will be taken before so very long to deal with cattle diseases other than tuberculosis, and that contagious abortion, mastitis, and Johne's disease will receive much more official attention. The veterinary profession, including county practitioners, must be utilised for this work, which can only be accomplished successfully if all sections play their part.

I also feel that as the research workers make new discoveries new channels of usefulness will be opened up for us. Such diseases as grass sickness in the horse, nutritional diseases in general and many obscure conditions in the sheep must be elucidated. When more light is thrown on these problems, to mention only a few, it would appear that our services will be more and more in demand.

I will close my remarks, not by thanking you for your patient hearing, as is such a common finale to such dissertations as this, but rather relating a little anecdote I heard recently. An old farmer living on a lonely farm used to attend a market from time to time on the only occasions that he left his farm, but usually returned home directly his business was completed. One day, finishing rather earlier than was his wont, he wandered into the town and looked into some shops. In one he saw a hand mirror lying on the counter and on picking it up to investigate what it was, looked upon his reflection, but to his utter astonishment he saw what he took to be the portrait of his late father. He asked the price and purchased the mirror which he took home and placed in a drawer. From time to time he used surreptitiously to open the drawer and gaze upon "his father's picture" but never told his wife of his purchase. She, becoming suspicious of her husband's movements, one day when he was out opened the drawer to see what he was concealing from her. On picking up the mirror she looked into it crying "Ah, so this is the old hag that John is running after, the faithless wretch. . . ." Gentlemen, I trust that my reading of the future as reflected by current events may be more skilful than that of our friends, the farmer and his wife.

The President's address, which was much appreciated by all the members present, was received with acclamation and on the proposition of Mr. Clarkson, seconded by Colonel Dixon, a hearty vote of thanks was accorded him.

Exhibit.—Colonel Dixon then exhibited a very interesting specimen of warble larvæ in the lining of the bovine œsophagus and also preserved specimens of the *Hypoderma lineatum*. Colonel Dixon stated that it was not at all unusual to find such larvæ in the œsophageal lining of bovines during the winter months. Several of the members present asked questions regarding this subject and Colonel Dixon suitably replied. A hearty vote of thanks was accorded to Colonel Dixon for exhibiting the specimens mentioned.

Discussion.—The President now called upon Mr. D. D. Canning to open a discussion on "Contagious Abortion." Mr. Canning went into the subject very deeply and enumerated the latest findings concerning this disease in various countries; he also tabulated the results obtained by various workers on the many preventive measures which may be employed in treating infected and suspected animals. All the members present were extremely interested in Mr. Canning's discourse and the following gentlemen took part in the discussion: The President, Messrs. Brennan, Campbell, Cruickshank, McKinna, MacGregor, Sampson, Salusbury, Scott and Watson. Mr. Canning suitably replied to all the points raised in the discussion and he was warmly thanked, on the proposition of Colonel Bowes, seconded by Mr. Campbell.

The Treasurer reported that he had communicated with two members of the Society who were greatly in arrears with their subscriptions and had received no reply in either case. On the proposition of Mr. Watson, seconded by Mr. Salusbury, the members in question were struck off the membership roll.

E. F. McCleery, *Hon. Secretary.*

Three lantern lectures will be given by Sir Robert McCarrison, at the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, on consecutive Thursdays, at 5 p.m. Subjects: March 12th, Nutrition and Health; March 19th, Food in Relation to Structure and Functions of the Body; March 26th, Nutrition and National Health.

LANCASHIRE VETERINARY ASSOCIATION*

CLINICAL DISCUSSION AT MANCHESTER

A general meeting of the Lancashire Veterinary Association was held at the Grand Hotel, Aytoun Street, Manchester, on Wednesday, December 4th, 1935.

The Chair was occupied by the President, R. C. Locke, Esq., M.R.C.V.S., D.V.S.M. (VICT.), and the following members were present: Messrs. A. L. Mullen, G. Mayall, G. C. Webster, A. J. Wright, J. Birtwistle, J. C. Baird, P. T. Lindsay, W. Woods, J. Holroyd, R. M. Lee, J. Barker, A. B. Mattinson, H. Raynor Hewetson, H. G. Hewetson, A. H. Leyland, T. McGhee and Miss N. Tillemont-Thomason. Mr. J. McGhee was present as a visitor.

Apologies for unavoidable absence were received from Messrs. Warwick Fowle, E. H. Curbishley, J. H. Wright, A. B. Kerr, E. A. Comer, R. Hughes, G. O. Davies, F. Hopkin, J. Spruell and Miss R. Datnow.

The minutes of the previous meeting, having been published in *The Veterinary Record*, were taken as read.

Correspondence.—A letter was received from Mr. H. G. Lamont, M.SC., M.R.C.V.S., Head of the Veterinary Research Division, Stormont, Northern Ireland, accepting the invitation to open a discussion on the recently-published report of the Spahlinger Vaccine Experiments, at a meeting to be held in January or February, 1936.

Unqualified Treatment of the Sick Animals of Poor Persons.—Mr. WEBSTER referred to the recent wireless appeal on behalf of the P.D.S.A. and proposed that a letter be sent to the National Veterinary Medical Association requesting that the latter draw the attention of the Directors of the British Broadcasting Corporation to the fact that the treatment given to animals by the P.D.S.A. is not carried out by qualified veterinary surgeons. This proposition was carried *nem. con.*

Election of New Members.—The fol'owing were unanimously elected members of the Association: Mr. A. S. Ratter, M.R.C.V.S., proposed by Mr. A. L. Mullen, seconded by Mr. J. Holroyd, and Mr. R. Greenhalgh, M.R.C.V.S., proposed by Mr. G. C. Webster, seconded by Mr. G. Mayall.

MOTION BY MR. HOLROYD

In proposing his motion, Mr. J. HOLROYD said: "The resolution I have to propose appears on the agenda of this meeting and reads as follows: 'That this meeting appoint a special committee for the purpose of collecting evidence relating to acts of unprofessional conduct which may be brought to its notice by any member of the Association and that the meeting also clearly defines the duties of such committee.' It is not so revolutionary as it appears at first sight.

"The National Veterinary Medical Association at its last meeting appointed a special committee, at the instigation of the Society of Veterinary Practitioners, to enquire into the effects which the activities of whole-time veterinary officers are having on general practitioners, and I believe it is the intention of that committee to submit evidence to the Council of the Royal College of Veterinary Surgeons if necessary. If the 'National' can do this there is no reason why a Division of the 'National' cannot also appoint a special committee to investigate matters of professional ethics in which its own members are concerned. Those of us who are privileged to serve on the Council of the Royal College of Veterinary Surgeons know full well the number of alleged cases of unprofessional conduct which have to be crossed out of the list on account of insufficient evidence. Major Mattinson will bear me out in this statement. As things are at present, the individual complaining has to arrange for all the evidence, pay the expenses of witnesses, his own expenses and the fees of any solicitor or counsel whom he may employ. This frequently amounts to a large sum of money, and rather than go on with the case the complainant allows it to drop.

"Amongst the learned professions I think the veterinary profession is alone in not having some Society or Union before which complaints of unprofessional conduct may be laid without having to go to the governing body in the first instance. The medical profession, which for a beginning we could follow, has an Ethical Committee of the British Medical Association. As long ago as 1840 the Provincial Medical and Surgical Association, which was the forerunner of the British Medical Association, considered the question of medical ethics and it was recommended that defaulters from the accepted code should not be admitted to membership, or if already admitted they should be expelled. In 1849 the British Medical Association appointed an Ethical Committee and from time to time laid down very definite rules regarding consultants, advertising, etc., and in 1907 decided that the Association should take all cases of a penal nature before the General Medical Council which, of course, corresponds to the Council of the Royal College of Veterinary Surgeons. The medical profession has also the Medical Defence Union, which may be likened to the National Veterinary Benevolent and Mutual Defence Society, except that its sphere of activities is very much greater than

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the Veterinary Defence Society. The Medical Defence Union now takes the cases before the General Medical Council and I am given to understand that private individuals never act as complainants to the General Medical Council.

"I am not proposing the adoption of this resolution in any vindictive spirit, for I believe that the members of the profession in this area are just as honourable as those elsewhere. I believe that it will be to the benefit of this Association and it will tend to make for good fellowship amongst the members of the profession. It is a well-known fact that many cases of unfriendliness amongst veterinary surgeons arise from some slight, perhaps imaginary, diversion from a high standard of professional conduct.

"In 'The History of the British Medical Association' appears this paragraph, which very well makes the point to which I refer: 'The power of the British Medical Association in its Ethical Committee is the moral suasion exerted by the known disapproval of his fellow practitioners which is the Association's chief disciplinary weapon and not the fear of presenting the case to the General Medical Council for extreme action.'

"If you do pass this resolution there are many details to fix and I know full well that it will be many years before we get perfection, but unless a start is made sometime (the profession is now getting towards the hundredth year of its existence) we shall still remain as we were a hundred years ago.

"The ethical machinery of the British Medical Association is the result of long experience and very careful and prolonged consideration. It has been developed gradually and for the most part from local beginnings and is now so devised as to meet the actual needs of the profession.

"Let us in Lancashire make a start, and no doubt other Divisions will follow. It is often said that 'what Manchester does to-day England does to-morrow' and I for one would like it to go down in the history of the veterinary profession that Ethical Committees were first started in Lancashire."

After discussion, Mr. Mattinson seconded the motion, which was carried unanimously.

The matter was referred to Council to draft regulations determining the powers of the committee and to submit them to a subsequent meeting of the Association.

Clinical Discussion and Demonstration of Pathological Specimens

Mr. C. F. Shawcross exhibited two interesting specimens, the first being a fractured *os pedis* of a pony. He explained that the animal had been injured by a motor vehicle and had been treated as a case of stifle lameness by an unqualified man. After four days' treatment the case had been brought to Mr. Shawcross who had had the animal destroyed. Mr. Shawcross further stated that it was on the advice of a police constable that the owner of the pony had taken the animal to an unqualified man. As a result of this statement, the following resolution, proposed by Mr. Mattinson and seconded by Mr. Webster, was carried: "That this matter be referred to the Council for further investigation and action if necessary."

The other specimen consisted of the heart and lungs of an aged dog which had had a cough for twelve months. The animal was destroyed and *post-mortem* examination disclosed what appeared to be lesions of chronic interstitial pneumonia. [This specimen was subsequently submitted for examination to Mr. G. O. Davies, of the Department of Veterinary Pathology, University of Liverpool, and a report of his findings is given by Mr. Davies in the Clinical Section of this issue, under the heading "Primary Adeno-Carcinoma in the Lung of a Dog."—*Editor.*]

Mr. Shawcross also referred to a simple method of extracting chaff or other similar body from the eye of a cow. He used a hypodermic syringe, half full of warm water, and stood directly in front of the cow's eye. He found that one strong squirt of the liquid directly into the cow's eye usually removed the foreign body. If this was not successful the first time, the cow did not resent second attempt being made after a very short interval.

Mr. J. Barker cited a case of a small pony suffering from colic, in which the usual treatments with arecoline, belladonna, linseed oil, etc., had given no relief. Eventually he mixed a bucketful of soapy water and inserted the pipe of the enema into the rectum. He found the pipe would enter to the length of about four feet. After further manipulation he got more of the pipe into the pony until he had inserted about seven feet. After the water had been used he pumped air into the animal through the pipe with a view to removing to another site any undesirable matter there might be. It had the desired effect on the pony which made a complete recovery. Mr. Barker said that before treating for colic he had treated the horse for rheumatism. It had been bedded with hay which was of a coarse nature.

Mr. G. C. Webster informed the meeting that he had been having good results in cases of milk fever by the use of calcium chloride, and gave the following formula: Calcium chloride 40 grammes; Magnesium chloride 15 grammes—given intravenously in 300 c.c. of water.

Mr. H. R. Hewetson exhibited a live wire-haired fox terrier dog, six years old. The

animal had a very bad skin infection resembling follicular mange. The dog had been healthy until three years old, when skin trouble commenced and was treated by an unqualified man. About twelve months after the onset of the trouble, during which time the dog had been treated by a number of unqualified men, the animal was brought to him, and he mentioned numerous skin treatments which had been adopted but with no success. An interesting feature of the case was that all the bare patches on the skin would turn red at night or shortly after a meal. Scrapings had been taken on three occasions, but there was no evidence of follicular mange. All kinds of ointments had been used and the diet changed, but with no success. Apart from the skin infection the animal had no other ailment and always had a good appetite.

In reply to questions, Mr. Hewetson said that ultra-violet rays had been tried, although not persistently.

Messrs. J. Holroyd, A. B. Mattinson, A. W. Noel Pillers, P. T. Lindsay, G. Mayall and A. J. Wright participated in the discussion which followed.

Mr. G. Mayall exhibited the heart and kidney of a fowl suffering from leukæmia. He did so because, of five text-books which mentioned leukæmia, only one mentioned the heart and kidney being affected. Most of the text-books did not refer to the heart lesion at all: the one that did refer to it had a good illustration of the condition in the heart.

Mr. A. J. Wright recounted particulars of the occurrence of anthrax in a pack of hounds, which he attributed to the consumption of offal from an anthrax-infected cow. This case produced an interesting and lively discussion on the various aspects of anthrax infection. [Mr. Wright's description of this case is transferred to our Clinical Section.—*Editor.*]

Following this discussion, Mr. Wright asked what was the position of a veterinary inspector in the case of his finding evidence of tuberculosis in the everted uterus of a cow. Should the case be reported?

The opinion was expressed that although the case was not scheduled under the Tuberculosis Order, 1925, there could be no real argument against advising slaughter of the animal.

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Reference was made by the President to the absence of Mr. E. H. Curbishley through illness, and it was unanimously resolved that a letter of sympathy be sent to him.

The meeting concluded with the passing of a vote of thanks to the President.

A. L. Mullen, *Hon. Secretary.*

In Parliament

Motion to Amend the Milk Act, 1939

On the motion (the House in Committee) to amend the Milk Act, 1934, by the extension of temporary provisions in regard to payments, the Parliamentary Secretary to the Ministry of Agriculture (Mr. H. Ramsbotham) said, in the course of his introductory speech, that this Financial Resolution was preliminary to a Bill to be introduced shortly in order to extend the period of certain provisions of the Milk Act of 1934. Power was taken under the 1934 Act to underpin the structure of the milk industry for two years, and it was hoped that before the expiration of that period it would be possible to negotiate other arrangements to enable the Government to introduce a permanent policy on milk and milk products. In July, 1935, the Minister announced that the Government proposed to review the dairy produce situation before March, 1936, in the light of our obligations under the trade agreements and the recommendations of the Reorganisation Commission for milk. He went on to indicate the general policy of the Government in regard to butter and cheese imports, and said that the Government were of opinion that if the conditions warranted a continuance of assistance to the home industry such assistance could best be afforded by a system of duties or levies.

It had not yet been found practicable to bring into operation a long-term policy on those lines. The General Election intervened, and the report of the Commission appointed to review the whole working of the milk marketing schemes, which was expected before Christmas, was not likely to be available before May. The committee would recognise that the matter was one of considerable complication, and one which could not be rushed if a satisfactory solution was to be found. Therefore it remained to consider the present position of the industry, and the steps taken to deal with it pending the receipt of the report of the Reorganisation Commission and the carrying through of the necessary negotiations with the supplying countries.

There was no doubt whatever that the policy initiated by the Act of 1934 had been eminently successful and had to a large extent achieved its objects. We now had a steady price for liquid milk and at the same time the consumer had enjoyed an abundance of milk products at a very low price. The problem of 1934, however, still remained. Accordingly, if in 1934 there was a case for assisting the industry there was to-day in view of the undoubted success of the policy of 1934 an equally strong case for assistance pending the long-term policy. On that assumption the Government proposed to extend the period of assistance in regard to manufacturing milk for 18 months until September, 1937, and in the case of the measures for stimulating consumption until the same date. The scheme for cleaning up the herds did not require to be extended, as it was fixed for a period of four years.

The cost of extending the period of payment to boards administering milk marketing schemes

was estimated to amount to not more than £2,500,000, for though the gallonage was expected to continue to increase the indications were that the rate of increase would not be anything like as great as it had been for the past two years. A criticism put forward during the 1934 debate and one which would probably be heard again that day took the form of the suggestion that they should spend the money on making more cheap milk available for children instead of buttressing up the price of factory milk. No doubt in these discussions it would be sought to show that if the milk were made available to the children precisely the same relief would be given to the industry as would be given under the proposals in the resolution. The short answer was first that even if they doubled or trebled the amount of milk already available at a cheap rate for children they would be left with a vast quantity of milk, which, in the absence of assistance, would inevitably endanger the stability of the milk market. Secondly, he thought that the calculations made in support of that suggestion usually left out the cost of distribution, and where they included it they reached a figure vastly beyond any figure contemplated in the financial resolution.

The bulk of the expenditure under the 1934 Act in stimulating the consumption of milk was devoted to the scheme for the provision of cheap milk for school children. That scheme operated from October 1st, 1934, and the Government's contribution to it was an aggregate of £1,000,000 for two years. It was proposed to continue the same rate of contribution for an additional 12 months at a cost of £500,000. He particularly welcomed this scheme because it formed a bridge between the Ministry of Agriculture and the Department of Education, in which he had spent the last four years. Consequently he was able to look at the scheme from the point of view of the two Departments.

The scheme was particularly welcome to the Board of Education because they had for some time been contemplating an intensive drive in the direction of more extended physical education and physical training for children—a drive which would necessitate, apart from education in physical training, greater attention to the health of the children to be trained. Many people felt that too much attention had been paid to mental training and too little to physical training. It was for that reason that he felt that the action taken under the Act of 1934 to provide cheap milk for children, a daily ration of the most nourishing and wholesome protective food in the world, was one of the best actions ever taken by any Government. At any rate, the supply of milk in schools had won the complete approval of the nation. It had captured the imagination of the people and appealed to everyone's sympathy. The scheme was still in its experimental stage, and there was need in many directions for further investigation. Even if it were possible at the moment to embark on a long-term policy it would still be advisable to operate the milk-in-schools scheme on an experimental basis in order to remove the various difficulties before placing it on a permanent basis.

Before the scheme began there were about 900,000 children in the schools of England and Wales receiving milk at 1d. per third of a pint, the full retail price, and their consumption was 10,000,000 gallons a year. That was done under an arrangement initiated by the National Milk Publicity Council in 1927.

By the spring of 1935 the number of children in public elementary schools taking milk increased to about 2,500,000. If they added the scholars in other grant-aided schools, the number to-day was in the neighbourhood of 2,750,000 children. Consumption was just on 23,000,000 gallons. So far the experiment had been most successful. There were still, however, some 2,800,000 children not drinking milk in the schools. To-day, concluded Mr. Ramsbotham, they were faced with three alternatives. They might allow the provisions of the Act of 1934 to lapse. He suggested that to do so would be deplorable. It would, apart from other things, have a grievous effect upon the structure of the milk industry. Secondly, they might retain the scheme and, as some hon. members suggested, terminate the assistance to the manufacturers of milk and devote the amount of that assistance to further cheap milk to the children. That would be to leave an immense gallonage on the manufacturing market, and would undoubtedly severely shake the price structure of the industry. They were therefore left with the third course, which he commended to the House. That was to continue action along the lines of the Act of 1934 and to continue its provisions in accordance with the terms of the Financial Resolution which he moved.

Mr. T. Johnston said that he could not understand why there should be a period for further investigation. What was there to investigate? There could be no doubt whatever that there was a great physical and immediate advantage to be secured by the provision of milk in schools. He could think of no reason whatever for further experimental inquiries. The facts were beyond dispute. Men like Sir John Orr had committed themselves to the statement that it was possible to increase the height of these children by three inches and their weight by from four to six pounds. This had been supported to the full by other investigations and nutrition experts.

We were now facing a 27 per cent. alleged surplus of milk in winter time. This Government came along and provided growing sums of money for converting this alleged surplus into dried milk, condensed milk, and umbrella handles. It was remarkable that we should raise money in a land where 10 per cent. of the people were under the B.M.A.'s standard of efficiency to turn an essential food into umbrella handles and the like. It was a sheer waste of public funds going to the waste of good food.

If the consumption of milk could be raised to the level of four pints used by what was termed "the good working-class family" an increase of 800,000 cows would be needed. There could be no surplus until everybody received enough. Milk was the second worst adulterated commodity on the market; it was only beaten in that respect by vinegar. It was time that steps were taken to remedy that state of affairs.

There was something inherently unjust in the fact that the Government's policy had resulted in hospitals and similar institutions having to pay an increased price for their milk. It was not a practicable proposal to suggest that such organisations should be supplied free, but surely the Minister could ensure in the new Bill that the price to be charged to them should be the pre-Milk Order price, and that they should not have to pay the increased price. There was no justification for "jumping" the price of necessary commodities to the poor and needy, and to the hospitals and institutions. What was needed was a new vision, instead of spending public money trying to destroy an ever-growing glut by pitching it into the sea or turning it into dried milk for export. He appealed to the Minister to introduce a big national policy. The right hon.

gentleman could do more for public health and the stabilisation of agriculture if he would seize the opportunity now presented and recollect that it was an age of abundance in which we were living.

Sir F. Acland said that the subsidy, so far as it had an effect on policy, helped to protect the farmer from being brought up too hard against the outstanding fact of the milk industry to-day, namely, that the liquid milk market was not greatly expanding and the factory market was; and that something definite ought to be done about it.

One possibility was to increase the proportion of milk sold as liquid milk, and that involved the adoption of something new in the way of a national food policy. He hoped they might hear that something of that kind was likely to be tackled long before the end of the 18 months for which the House was being asked to renew the subsidy.

The Government ought to organise a supply of milk at, say, 3d. a quart in all the districts of severe unemployment. If they could get an average extra consumption of one pint per head per week it would solve all the problems of the milk producer for a long time to come.

Captain Cazalet said that he hoped that by the time the present extension of the milk subsidy lapsed the Government would be able to bring in a permanent scheme and that the House would not be asked again to grant a temporary subsidy for this particular part of the agricultural industry. He thought that on the whole the Milk Board had worked extremely well. The scheme had saved hundreds if not thousands of milk producers in this country from bankruptcy. As showing the effect of the scheme on the improvement of the quality of the milk produced the hon. member said the number of accredited producers had risen from 800 to over 13,000, and expressed in quantities of milk produced, 25 per cent. of the milk produced to-day came from accredited producers.

Mr. T. Williams said the milk industry was confronted with exactly the same problem as two years ago, except that it had been aggravated. The surplus of milk available for factory consumption was greater than in 1934. The consumption of liquid milk last year increased by only 26,000,000 gallons, whereas the milk which went for factory consumption increased by 109,000,000. The Minister was attracting more milk into the market while spending power was not available to purchase it at the present price. To continue the emergency legislation would worsen the problem instead of solving it. No proposal was made for increasing the wages of the poorest paid section of the community. As *The Times* had stated, instead of pouring milk into the factories they should be pouring it into the stomachs of the children who required it.

Mr. Elliot, replying to the debate, said that no doubt Mr. Williams, when *The Times* was opposed to him, would show himself as much impressed by its averse opinion as he was that night by its favourable opinion. (Laughter.) To-day 2,750,000 children were getting milk who would not be getting it if these proposals had been defeated two years ago. Faced with the crisis in the liquid milk market all over the world, this country had maintained relative stability in that market and in addition had made a great advance in the consumption of liquid milk, particularly in the schools. Two things had to be done, first, to maintain the milk industry, and, second, to secure the health and up-building of future generations.

The danger of using the surplus simply because a surplus existed was one of the evils they had to guard against in the development of this new policy and he welcomed the criticism which had been made from all parts of the House about the difficulties in the milk in schools scheme. All these were matters for which the Government were asking time for investigation. This period of test of administrative experience would be most valuable to the Government when they came, as they would come, within a few months, to the framing of a long-term policy in this section of agriculture.

Without the processed milk market it was impossible to maintain the liquid milk market. The maintenance of the dairy industry involved the maintenance of the surplus of liquid requirements. When hon. members said that this valuable food was being diverted to other purposes or was being destroyed as food they were really talking of things which did not bear that sinister interpretation. He was surprised to hear the ridiculous story that some of the processed milk was used for making umbrella handles. Not a single penny of Government money had been, or was being, spent on milk going for any such process.

He had every sympathy with the desire of hospitals and institutions to have their supplies at a lower rate, but he could not concede the point that if they did so they would purchase more. If any scheme could be worked out which would show that there would be an increase he would support it. If not, then it could not be solved in this measure but must wait for the long-term policy.

The Resolution was carried by 213 votes to 140—Government majority, 73.

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Milk (Extension of Temporary Provisions) Bill

This Bill was read for the second time on February 20th, when in the course of the debate, Mr. Alexander said: "I want to say a few words about the question of clean milk and the cleaning up of herds. Since 1915 we have had a variety of Governments, and for a very short time we had two Labour Governments, but when the Minister speaks about the great expedition which is now being obtained in cleaning up the herds, I wonder whether he realises that we have had all the necessary powers on the Statute Book ever since the Milk and Dairies Act of 1915, for really putting the production of milk upon a clean basis. The right hon. Gentleman says that the Milk Marketing Board are doing a great service in their accredited milk section, but he is a little wide of the mark when he suggests that the scheme of the Milk Marketing Board is, in fact, largely responsible for the improvement in the standard of production in that regard. I am sure that the Minister is aware that those of us who are interested in the larger section of the distributive trade in milk, in the modern methods of distribution and of receiving, cooling, pasteurising and bottling, have to keep records as to bacteria. If you take our experience of the past eleven or twelve years and the actual records of bacteria of milk, it is not true to suggest that the number of people who are regarded as being within the accredited scheme of the Milk Board have increased so enormously because the standard is so good. It means that there is a very large number of farmers whose herds always have been producing clean milk who have never applied for a licence because they were not certain of always being able to reach the standards required, on any day a sample of milk might be taken, but who, in fact,

with their connection with the distributive trade and the keeping of a check on bacteria, were supplying good clean milk. Those who have done the most towards improving the standard and quality of milk are the people who have kept a check on the producer. I hope that the right hon. Gentleman will not take the propaganda of the Milk Board in this matter as being the whole of the truth. I think it is beginning to regularise what has already been introduced for so long by the important retail and pasteurising organisations in the country.

"When the right hon. Gentleman speaks about the cleaning up of herds, he takes a great responsibility in the Department. He cannot have forgotten the Gowland Hopkins Report. It is not very old. Only 18 months ago the report told us that 40 per cent. of our cows now react to the tuberculin test. That position wants a bit of cleaning up, does it not? If one takes the same report one sees how wasteful is the present organisation of milk production in this country because of the way in which milch cows are being killed off. They are being killed off after about 4½ years, when if they were properly maintained on a healthy basis they might be expected to be good milk yielders for anything up to ten, eleven or twelve years. I believe that it was the Gowland Hopkins Report that told us on that point that, in consequence of the lack of efficient organisation in production, or rather because of the wasteful methods which are followed, there is an annual loss of about £3,000,000 to the dairy industry. On the basis of the subsidy which the Minister is proposing to-day — something over £2,000,000 over 18 months—the whole of the money could be met by remedying the loss on the present basis of the organisation of the milk herds of this country. I am not complaining to him as to the responsibility for the present position in the herds. All I am saying is, that if he is taking the Gowland Hopkins Report, which is vital, as a code of instruction of what ought to be done with regard to cleaning up the herds in order to get a large number in the accredited milk scheme, we shall be satisfied. It wants a much bigger, and a more intensive and scientific scheme if we are to get rid of a position in which there are 40 per cent. of our herds reacting at the present time to the tuberculin test.

In the course of further debate, Mrs. Tate said that she welcomed the Minister's statement that he was not satisfied that all that was possible had been done by the Ministry to cleanse our herds. Pasteurisation came, as the Minister said, under the Milk Board. In any case it was a palliative and a most inadequate method of dealing with the problem. The slaughtering of tuberculous cows was extraordinarily costly, and by that method it would be a long time before the herds of this country were free from the Koch bacillus. We should endeavour to immunise every calf at birth against tuberculosis. It was not long ago that in Northern Ireland results of tests with the Spahlinger vaccine were made public. She thought it was conclusively proved that the use of that vaccine, which was absolutely safe because it was a dead vaccine, would immunise our calves. They had not yet heard that the Ministry intended to make that vaccine available to farmers. She would like to hear what steps the Minister was taking with regard to making it available. She believed that if they could—and she thought that this was possible—ensure tubercle-free milk, they would popularise milk, and aid our agricultural industry and do much to save our nation from the scourge of tuberculosis.

In his reply for the Government, Mr. Ramsbotham said: "The hon. Lady the Member for Frome (Mrs. Tate) reminded us that liquid milk consumption in this country is considerably behind the consumption in certain other countries, notably the United States. I have figures here showing the disparity which exists between this country and the United States, France and Germany. The estimated income per head of population in the United States is £87 a year and the annual consumption per head of liquid milk is 310 pints. The estimated income per head of population in this country is £74 and our average consumption of liquid milk is 140 pints per year, or less than half that of the United States, although the average income is nearly the same in the two countries. Then look at Germany and France. The estimated average income per head of population is £52 and £56 a year respectively, but the consumption per head of liquid milk is considerably above that in this country, 180 and 187 pints a year. It comes down to this, that there is a great need in this country for further propaganda in order to induce the population to drink more milk.

Spahlinger Vaccine Tests

"The hon. Lady the Member for Frome also referred to certain vaccine tests carried out by Dr. Spahlinger. I can only say that we are in close touch with the Government of Northern Ireland on the matter and it is hoped to make arrangements for tests on a considerably larger scale."

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The following questions and answers have been recorded in the House of Commons recently:—

Milk

Mr. R. Acland asked the Minister of Agriculture whether he can give, to the most recent convenient date, figures showing the number of producers of milk entitled to receive the bonus for pure milk provided by the Milk Act of 1934; what is the output of such producers; and what improvement the figures show over the corresponding figures at any earlier date?

Mr. Elliot: The number of producers of milk from herds certified by the Ministry under the Attested Herds Scheme to date is 59, who own a total of 65 herds comprising 2,558 animals which have been attested at various dates since February 1st, 1935. Twenty-two of the herds are licensed to produce Certified or Grade A (T.T.) milk, and, in cases in which the owners have claimed exemption in respect of such milk from the Milk Marketing Scheme, they are not entitled to receive the bonus under the Attested Herds Scheme. The only figures indicating output are contained in the claims for the 1d. per gallon bonus payable in respect of milk sold through the Marketing Scheme. Claims have been received in respect of 40 herds only, covering an average of about five months each, and a total production of 237,076 gallons. There are no corresponding figures in respect of any previous period.

Miss Rathbone asked the Minister of Agriculture what has been the amount of the Exchequer grant actually paid during the last 12 months, or other ascertainable period, towards the supply of milk in schools and, secondly, towards the cost of milk supplied to manufacturers for milk products; and what has been the average price per gallon received by the farmers in both cases.

Mr. Elliot: During the first 12 months (October 1st, 1934, to September 30th, 1935) of the operation of the Milk-in-Schools Scheme in England and Wales, 22,750,000 gallons of milk were consumed in respect of which the Milk Marketing Board received £401,000 in grants from the Exchequer, an average rate of 4·23d. per gallon. During the same 12 months (October 1st, 1934, to September 30th, 1935) (for which information is not yet complete) 200,000,000 gallons of milk were processed in England and Wales in respect of which the Milk Marketing Board received £1,061,000 by way of Exchequer advances, an average rate of 1·27d. per gallon. Individual producers actually received in respect of both supplies the pool price which has averaged throughout the 12 months in question 11·99d. per gallon.

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Milk (Special Designations) Order

Mr. T. Williams asked the Minister of Health whether his attention has been called to the recent criticisms of the new Milk Designations Order; and will he undertake to re-examine the question, with a view to helping the campaign for pure milk instead of deteriorating the standard already attained?

Sir K. Wood: Various representations have been made to me on the draft Milk (Special Designations) Order, and they will have my fullest consideration before the Order is finally settled.

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Bovine Tuberculosis

Mr. Acland asked the Minister of Agriculture what sums the Government have spent since 1934 on experiments to discover means of eliminating bovine tuberculosis; and whether any results have been achieved?

Mr. Elliot: Research on bovine tuberculosis has been in progress for some years at the Institute of Animal Pathology, Cambridge, and, to some extent, at the Ministry's Veterinary Laboratory, and the National Institute for Research in Dairying at Reading. It is not possible to give a precise figure of the sums expended, which form part of the general expenditure of the institutions named. Since 1934, however, in consultation with the Agricultural Research Council, special grants have been made to extend the work at Cambridge, amounting to £375 in the year ended March 31st, 1935, and £5,320 in the year ending March 31st next. The subjects of the investigation are the use of B Ç G vaccine and of tuberculin and the work is still in progress.

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Meat Marketing

Mr. Boothby asked the Minister of Agriculture whether he proposes to fulfil his undertaking with regard to the reorganisation of the marketing of beef?

The Minister of Agriculture (Mr. Elliot): The initiative in the submission of marketing schemes under the Agricultural Marketing Acts rests with the producers concerned. The whole position concerning the reorganisation of the marketing of livestock has been exhaustively considered by Reorganisation Commissions for England and Wales and for Scotland, whose reports are before the industry and are being closely considered by it. No scheme has, however, yet been submitted either to my right hon. Friend, the Secretary of State for Scotland, or myself.

Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Feb. 29th.—Meeting of the Society of Veterinary Practitioners at Stirling, 2.30 p.m.

Mar. 2nd.—Meeting of the Editorial Committee, N.V.M.A., at 2, Verulam Buildings, Gray's Inn, W.C.1, 4 p.m.

Mar. 3rd.—Meeting of the Dumfries and Galloway Division, N.V.M.A., at Carlisle, 12 noon.

Mar. 3rd.—Royal Veterinary College, Annual Ball, Park Lane Hotel, W.

Mar. 5th.—Meeting of the Central Division, N.V.M.A., Conway Hall, W.C.1, at 6.30 p.m.

Mar. 6th.—Meeting of N.V.M.A. Finance and General Purposes Committee, 2, Verulam Buildings, Gray's Inn, W.C.1, 2.30 p.m.

Mar. 13th.—Annual Dinner and Dance of the Yorkshire Division, N.V.M.A., at the Guildford Hotel, Leeds.

Mar. 17th.—University of Liverpool, School of Veterinary Science, Dinner and Dance, Reece's Restaurant, Parker Street, Liverpool.

Mar. 30th.—N.V.M.A. Committee Meetings.

Mar. 31st.—N.V.M.A. Council and Committee Meetings.

April 1st.—R.C.V.S. Annual Fee due.
R.C.V.S. Committee Meetings.

April 2nd.—R.C.V.S. Committee Meetings.

April 3rd.—R.C.V.S. Committee and Council Meetings.

May 7th.—Last day for nominations for election to R.C.V.S. Council.

May 21st.—Voting Papers issued, R.C.V.S. Council Election.

May 28th.—R.C.V.S. Council Election Voting Papers due.

June 4th.—R.C.V.S. Annual Meeting and Luncheon in Edinburgh.

June 11th.—D.V.S.M. Examination begins.

June 24th.—R.C.V.S. Committee Meetings.

June 25th.—R.C.V.S. Committee Meetings.

June 26th.—R.C.V.S. Committee and Council Meetings.

June 29th.—R.C.V.S. Membership Examinations begin.

Sept. 14th-18th.—N.V.M.A. Annual Congress, Scarborough.

REGISTER OF VETERINARY SURGEONS, 1936

The new Register is out and is being despatched to all members whose Annual Fees are paid by Bankers' Order. It will follow to those who pay the Annual Fee by cheque with the receipt for the Fee. It is a slightly larger volume than that for 1935, consisting of 340 pages as against 327. The list of members occupies five pages more than that for 1935, there being now on the Register 3,526 members as compared with 3,440, an increase of 86. The number of new graduates was 161, and the number of names removed for death or other reason was 75. The list of "Existing Practitioners" has been reduced from 23 to 18.

The list of whole-time officers in County and Municipal services occupied seven pages in the 1935 Register. This year the list extends to ten pages. There are now 147 whole-time veterinary officers in County services and 76 in Municipal services, as compared with 98 and 74 respectively in 1935.

The names of the following are liable to be struck off the Register unless an address is notified to the Registrar.

Name.	*Former Address.*
Anderson, T.	Forfar.
Gibbins, J.	Vancouver, Canada.
Mackay, M.	Rotherham.
Porter, C. H.	Hoylake.
Smith, T. A.	London, S.E.
Somers, H. L.	Thornton Heath.

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LADIES' GUILD EFFORTS FOR BENEVOLENCE

We have received the gratifying intimation, from Mrs. Nickinson, the Hon. Secretary of the Ladies' Guild, that as a result of the dance held at Princes' Galleries, Piccadilly, W., on January 17th, the always-strained financial resources of the Victoria Veterinary Benevolent Fund will be augmented by the sum of £53—a result which will give pleasure not only to those who organised so successful a function but to all who participated and, in particular, to the officers of the Fund. Since then, the good work has been carried further by the President, Mrs. Wragg, who has raised an additional £12, while a friend of the President's—Mrs. Slinn, of Birkenhead—has collected the splendid total of £26 1s.

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DUTIES OF VETERINARY INVESTIGATION OFFICERS

From correspondence received by the Association, it would appear that some confusion still exists in the minds of certain members as to the duties of those who were formerly termed Veterinary Advisory Officers and whose designation, when their duties were revised last year, was altered to that of "Veterinary Investigation Officer." We therefore reproduce such of those revised instructions as are related to the points raised.

"*Instruction* 1.—He should not treat individual cases of disease except where extreme urgency demands such action. In such a case first-aid treatment should be given and the owner should be advised to send for his veterinary practitioner, whom the Veterinary Investigation Officer should acquaint if possible. In certain provinces it is not possible to apply this rule without exception to poultry diseases, but even so, the officer should not treat cases if a veterinary practitioner is normally employed or is likely to be called in."

"*Instruction* 3.—He should not engage in the preparation of biological products for sale, nor should he normally supply them direct to stock-owners or give instruction in their use. There is no objection to such a practice in the course of experimental work, but even so the collaboration of the veterinary practitioner should be secured wherever possible for the purpose of carrying out the inoculation. In cases of a disease which appears to an officer to be of such nature that it would ordinarily be treated by a veterinary practitioner, the farmer should be advised to get instruction in the use of vaccine from that practitioner.

"Where, however, there is a pressing demand for remedial measures on a larger scale than could be dealt with by the local practitioners (*e.g.*, the inoculation for braxy in certain areas), the officer, as far as possible in collaboration with the practitioner, may assist owners in obtaining vaccines or other specifics and instruct farmers in methods of application, should the ordinary methods of instruction not be available."

"*Instruction* 4.—It should be regarded as an important part of the officer's duties to encourage co-operation between farmers and veterinary practitioners with a view to arranging concerted action against disease causing particular damage in the Province."

"*Instruction* 6.—In general, the cases in which advice should be given should be restricted to the following three classes:—

(*a*) Epizoötics.

(*b*) Outbreaks of obscure cases of disease.

(*c*) Prevention of disease.

Where the services of a veterinary investigation officer are sought by a farmer, otherwise than through a veterinary practitioner, the farmer should be informed that if he invites his practitioner to come to the premises, the officer will be pleased to attend also at a time mutually convenient, and to give advice in collaboration with the practitioner.

"If the farmer refuses to follow the course suggested, the officer will not take up the case.

"If the practitioner unreasonably refuses his

collaboration or fails to keep the appointment, the officer will be free to take up the case.

"Should an officer desire to visit a farm for the purpose of collecting information or of obtaining material for his experimental work, he should inform the veterinary practitioner concerned, notify him of any subsequent visit, and, if the practitioner so desires, keep him informed of the progress of the investigation.

"If a farmer brings or sends to an officer's laboratory an ailing animal or a fresh carcase or other material from an outbreak on his farm, and diagnosis can be given without the necessity of a visit to the farm, such diagnosis may be given provided the officer at once informs the farmer's veterinary surgeon of the action taken.

"In the case of a remote farm where the officer is satisfied that the farmer cannot reasonably be expected to employ a veterinary surgeon, he need not insist on the farmer inviting a veterinary surgeon to meet him."

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PERSONAL

Appointments.—Mr. A. H. Hunter, B.V.Sc., M.R.C.V.S., D.V.S.M., has been appointed as Assistant Veterinary Officer to the Notts. County Council.

Mr. D. Kerruish, M.R.C.V.S., of Douglas, has been appointed veterinary inspector for the isle of Man by the Manx Government.

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Captain A. W. Noel Pillers' Illness.—We are glad to be able to report that the condition of Captain A. W. Noel Pillers, F.R.C.V.S., Chief Veterinary Officer for the City of Liverpool, who, as stated in our last issue, was taken suddenly and seriously ill, shows some improvement. When, on the 17th instant, Captain Pillers had a heart attack, there was cause for considerable anxiety; we are now informed that he is progressing favourably, but must be regarded as an invalid for some weeks.

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Wills.—Evans, Dr. Griffith, M.D., D.Sc. (100), of Brynkynallt, Bangor, late Inspecting Veterinary Surgeon, Army Department (net personalty £18,329), £19,648.

Miss Beatrice Le Fanu, of Cambridge, who left £5,895, directed that, subject to life interests in the residue of the property, £500 goes to the League for the Prohibition of Cruel Sports, and the remainder to the Royal Veterinary College, Camden Town, for any purpose connected with cats, particularly poor persons' cats, as the Governors decide; none to be used for experiments connected with pathological research or for the provision of a lethal chamber.

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R.C.V.S. OBITUARY

Warren, Frank, F.R.C.V.S., of "Spinneys," Three Elm Lane, Tonbridge, and of Hadlow, Kent. Graduated London, March 26th, 1886; died February 21st, 1936.

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HIGH-GRADE MILK PRODUCERS AND THE PROPOSED NEW DESIGNATIONS

Sir Kingsley Wood, the Minister of Health, who was accompanied by Mr. Geoffrey Shakespeare, M.P., and Sir Edward Campbell, M.P., recently received a deputation from the Certified and Grade A (Tuberculin Tested) Milk Producers' Association, when Lord Iveagh said that the Executive Committee of the Association had drawn up a number of comments on the draft Milk (Special Designations) Order, 1936. They expressed regret that the draft Order did not maintain a separate designation for the highest grade of raw milk, and, more particularly, that it permitted the use of the designation "certified" in connection with tuberculin-tested milk after pasteurisation.

Sir Kingsley Wood said that, in view of the report of the Cattle Diseases Committee of the Economic Advisory Council, he felt bound to maintain the decision to have only one grade of tuberculin-tested milk. He sympathised, however, with the deputation's objections to the proposed new use of the word "certified." He had received many representations on this point, and he was satisfied that he must confer again with the Minister of Agriculture. He would take an early opportunity of doing so and make a further announcement as soon as he could.

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LEGAL NOTES

Assize Action over a Pig Deal.—The special jury failed to agree in this action, before Mr. Justice Mackinnon at the Norwich Assizes, the first day's hearing of which was reported in our issue of February 15th. No further veterinary evidence was given.

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Horses from Irish Free State: Customs Frauds.—As a result of Customs prosecutions at the Mansion House during the past two months penalties amounting to £23,000 have been inflicted, mostly in cases of evading duties on horses imported from the Irish Free State. On February 20th, Samuel Arthur Brake, a farmer, of Higher Farm, Limington, Yeovil, Somerset, appeared at the same Court on 24 summons—12 for making false Customs declarations and 12 for being concerned in fraudulent attempts to evade duties. The defendant, for whom Major H. C. C. Batten, solicitor (of Yeovil), appeared, pleaded "Guilty" to all counts.

Prosecuting on behalf of the Commissioners of Customs and Excise, Mr. B. M. Stephenson said that in December last the defendant was seen by Customs officers, and after some investigation had been made regarding his horse-dealing business he made a statement to the effect that between October, 1932, and November, 1935, he had paid something like £21,800 for horses he had bought in Southern Ireland and that he had been declaring false figures. "When the duties first came on," the defendant had said, "I declared the correct cost prices of the horses I bought, but soon after I found that to meet competition, and because everybody else was doing it, I had to declare lower values for Customs purposes." The total under-payments alleged, said Mr. Stephenson, amounted to £4,400.

Major Batten stated that his client disputed the Customs figures. In his view there was no reason why the Court should automatically accept the Customs figures because Brake had admitted that his own were "rather on the low side." There had been bargaining between him and the authorities, and while the Customs put on the highest possible figures the defendant tried to get the horses through on the lowest.

Alderman Sir W. Phené Neal.—What are the total maximum fines I could impose in this case?

The Clerk.—£32,000, and you could also send the accused to prison for two years.

The defendant was fined £500 on each of the first 12 summonses and £200 on each of the

others—a total of £8,400. He was also ordered to pay 20 guineas costs.

Sir Phené Neal said he was prepared to give Brake a reasonable time to find the money, but if he made default he would have to go to prison for six months.

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HUNTERS' IMPROVEMENT SOCIETY

At a recently-held Council Meeting of the Hunters' Improvement Society it was reported that a very satisfactory entry for the coming Show at the Royal Agricultural Hall on March 17th to 19th had been received, *viz.*, 99 thoroughbred stallions, 116 young stock and 80 riding horses. Entries for the jumping classes had not yet closed. All necessary arrangements for the Show were determined, and the programme of judging would be available shortly.

Volume 14 of the Hunter Stud Book would contain the excellent entry of 1,028 hunter mares and geldings; also the full records of the various premium stallions, and details of the prizes gained at country shows by the produce of premium, registered hunter and registered Irish stallions during the last three years.

The Council accepted with pleasure the offer of a Cup by Mr. H. Hindley to be awarded at the Royal Show each year for the best young hunter not exceeding three years of age, the Cup to be won three times by the same exhibitor before becoming his property.

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NATIONAL PONY SOCIETY

Mr. F. H. Uwin, presiding at a Council Meeting of the National Pony Society on February 14th, reported that a very good entry had been received for the coming Pony Show to be held at the Royal Agricultural Hall on March 20th and 21st.

There was an entry of 36 young polo ponies, nine in the brood mare class, seven polo stallions, 73 in the polo pony riding classes, nine in the polo-bred hacks, twelve Welsh ponies, 27 Shetlands and 60 in the Arab classes. He was very pleased to say that the two new classes for mountain and moorland ponies to be ridden, had received an exceptionally good entry, and there would be 17 in each class. The President thought that these two classes would be very interesting to all as indicating the value of these pure native breeds as riding ponies.

He anticipated that there would be a very large entry in the children's three riding classes and the two equitation classes, the entries for which had not yet closed. He hoped that the very attractive programme of jumping and gymkhana competitions would also be well supported. An exhibition of polo pony training at the gallop would be given each afternoon by The Queen's Bays.

Mr. Herbert Bright, the well-known breeder of polo ponies in the North, will be the President of the Society after the show, while the name of Mr. Roy B. Charlton, of Hexham, will be submitted to the members at the Annual General Meeting as President-elect (*i.e.*, President in 1937). Both these gentlemen should prove popular and active Presidents, as both take the keenest interest in the work of the Society.

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DR. A. A. GRAY'S WORK FOR COMPARATIVE OTOLOGY

Reporting the death of Dr. Albert A. Gray (recorded in our issue of January 18th) *Nature* recalls his work on "The Labyrinth of Animals" (2 vols.) and states: "This magnificent work demonstrated the naked-eye structure of the internal ear of vertebrate animals in a new way. He improved the technique of clarifying specimens to a degree which permitted him to expose in all its detail the internal ear within the transparent temporal bone of all vertebrate animals. In this way he was able to add many new facts to the comparative anatomy of the ear. He sought to found the practice of the ear surgeon on a scientific basis, applying himself in particular to that prevalent cause of deafness known as otosclerosis."

Dr. Gray spent his active professional life in Glasgow, where he held the post of lecturer in otology in the University and of aural surgeon to the Infirmary. He was elected president of the otological section of the Royal Society of Medicine and of the corresponding section of the British Medical Association.

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CENTRAL EAST AFRICAN ANIMAL HEALTH STATION

The eventual establishment in East Africa of a central research station for animal health will be discussed at the forthcoming British Commonwealth Scientific Conference in London. Sir Joseph Byrne, Governor of Kenya, made this announcement when he addressed the joint meeting of the Medical and Veterinary Research Conferences in Nairobi on January 20th.

The Conferences were the second in the series organised on the recommendation of the East African Governors' Conference, and their reports will be submitted to the Colonial Advisory Medical Committee and to the Colonial Advisory Council of Agriculture and Animal Health.

Sir Joseph said, *inter alia*: "I realise the close interdependence which exists between many of the major problems of human health and of animal husbandry, and the importance of an appreciation of that interdependence by the executive administrator who relies on your researches for the formulation of his general policy for the welfare of the people and for the promotion of trade and industry. In no field is this interdependence perhaps better marked than in the study of nutrition. The Medical Conference which met two years ago in Entebbe recorded its opinion:—

"'(1) That so far as meat and milk are concerned, it would be of great advantage if these articles played a greater part in the dietaries of native peoples, and this matter is chiefly a question of distribution as regards meat and of the introduction of mixed farming as regards milk.

"'(2) That this question raises issues which, so far as executive action is concerned, lie chiefly with the Administration in co-operation with the appropriate technical departments, and this Conference desires to invite the attention of the Governors' Conference to the great importance to public health of research into the administrative problems involved.'

"If full effect could now be given to the wishes of the Medical Conference in these matters we should be well on our way not only towards improving human health but towards solving to some extent at least the problems of overstocking and soil erosion, while if the veterinarians can solve how to produce better beef stock or better milkers or if such be now the fashion, better double-purpose animals, it will be to the benefit not only of animals, industry and trade but of what after all is always our ultimate purpose, the better health of man.

"The Governors' Conference to which you will report is not oblivious of your past recommendations. Its difficulty has been to find ways and

means of translating them into practice and though much has been done in the past two years to give effect to your recommendations with regard to nutrition, much more remains to be done, and I and my officers will welcome whole-heartedly any further recommendations which you may have to make.

"In my judgment you have a great opportunity at the present time to advance the cause of medical research, an opportunity that may not occur again for a long time. The Colonial Advisory Council of Agriculture and Animal Health in commenting on the Report of the last Veterinary Research Conference, recommended the appointment of an East African Co-ordinating Committee to meet at shorter intervals, and to report to the Governors' Conference on matters relating to long-range investigations: this committee will meet immediately after the Veterinary Research Conference concludes its work. The Colonial Advisory Council also made a suggestion regarding the possibility of centralising the manufacture of vaccines and sera for the East African territories and for converting the existing library at the Veterinary Research Laboratory, Kabete, into a central lending library for workers in all territories: these questions will be examined.

"It is evident that His Majesty's Government attaches considerable importance to these discussions of common research problems and, in this connection, it is of interest to note that in planning the agenda for the British Commonwealth Scientific Conference, shortly to be held in London, the first item listed by the Colonial Office under animal industry refers to the eventual establishment in East Africa of a central research station for animal health."—*East Africa.*

Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The Editor does not hold himself responsible for the opinions of his correspondents.

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VETERINARY SERVICE, PRESENT AND FUTURE

To the Editor of The Veterinary Record

Sir,—I have read with due care the letters of Messrs. Edwards and Coleman in your last issue and perhaps one who has been less successful, should congratulate them in that their contributions have received immediate publication.

Mr. Edwards suggests that "I am seeing bogies where none exist" and I heartily wish I could believe him, for I have inherently as great a desire to see the success of the N.V.M.A. as he can have.

Surely "the gentleman protesteth too much" and further weakens his case by a computation of figures regarding the constitution of seven committees of the N.V.M.A. that must be deemed misleading in a definite way, inasmuch as I made it clear when I used the word "remnants" that it was in relation to whole-time officers of Local Authorities. He has chosen, nevertheless, to array their numbers under two headings:—

(*a*) Practitioner members, and

(*b*) Other than practitioners

and his intention is easily interpreted. In all fairness, Sir, it would be enlightening and more to the purpose and his credit if he would in your next issue, compute his figures anew under the headings I make bold to suggest, *viz.*:—

(*a*) Whole-time veterinary officers of Local Authorities, and

(*b*) Other members (not Local Government Officers).

We will then know if, and to what extent, he has overreached himself in respect of what I regard as the precarious position of the remnants of the whole-time officers in the committees of the N.V.M.A. Their position in the Council of the R.C.V.S. is too obvious for comment.

As an onlooker without material or personal interest in the matter, I wrote my letter as a warning and if it pass unheeded, "the proof of the pudding'll be in the preein' o't."

We have surely come to a sorry pass if criticism is to be regarded as evidence of disloyalty. No great association can afford to be thin-skinned or narrow and insular in its outlook any more than the leader of a large army who has a great work to do.

When all the meetings have been held and resolutions come to, when the harvest of replies to that ill-designed and innuendo-carrying questionnaire has been garnered and laboriously winnowed, and when the so-called practitioners attain within the N.V.M.A. a power that will be absolute, perhaps one of your correspondents will tell us in what respect the Association will have advanced its power to influence Local Authorities.

Everybody knows that Local Authorities are charged with the duty of administering the Public Health and other Acts and Orders with due regard to efficiency and economy and it is common knowledge that when confronted by any problem they at once seek the advice of their experts. If the influence of the whole-time veterinary officer should be so exerted that a reasonable amount of part-time service may still obtain in many places, it seems evident that no kindly attempt has ever been made to secure it and recent happenings are calculated to warp the issue effectively. What will it matter then if they "gain the whole world" in respect of power within the Association, if they lose the very soul of their ambition and desire by contriving the alienation of those professional brethren who, more than any Association, could further their interests?

Intense stupidity characterises so much that is being done that one cannot avoid the conclusion that the Association should seriously consider its trend and reconstruct its programme with the object of securing the goodwill and help of all sections of the profession. I was quite conscious that what I wrote in my last letter might prove unpalatable to many who had burned their boats, but that did not deter me.

I would gladly have dealt with the other issues in your correspondents' letters, but for the most part they are a recapitulation of much that I have listened to and read in past days and space forbids.

Yours faithfully,

Hugh Begg.

Elm Lodge,
Hamilton.
February 25th, 1936.

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To the Editor of The Veterinary Record

Sir,—Your many correspondents on the unfortunate state of our profession appear to be, I hope temporarily, blinded by undue apprehension of, or anger at, individual failures in our

personnel. I think that no general practitioner who honestly surveys the possibilities of general practice—who would even lower himself to consider the commercial prospects of general practice—can but admit that the prospects for the profession as a whole are tremendous, and the opportunity golden.

The ignorance and credulity that keep "the quack," "the veterinary chemist," "the patent medicine seller" and "the poor people's animal attendant" in clover for cash payments should give grave indication of the necessity for our united, scientific and vigorous interference. We need to cherish our prestige with tact, not lower it by any shortsighted policy or puerile bickering.

The whole-time officer was needed, is needed, and will be needed more; the general practitioner is irreplaceable; both would probably benefit by a little more appropriate instruction, supervision and a greater faith in all our futures.

Vis Unita Fortior!

Yours faithfully,

B. G. Catmur.

Abingdon,
Berkshire.
February 18th, 1936.

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A DEFENCE OF TRAUMATISM AS A PATHOGENIC FACTOR IN SOME EQUINE DISEASES

To the Editor of The Veterinary Record

Sir,—It is a function of age to object to new ideas that do not seem to accord with general experience—and sometimes just to object to new ideas. It seems to me, and evidently also to some of my contemporaries of the horse age, that subjective thought on equine surgical conditions tends to get too far ahead of objective fact in an age when the latter is harder to find. Grounds for this objection may be found in recent numbers of *The Veterinary Record* among the papers and discussions on fistulous withers and poll-evil, and the so-called "rheumatic disease" of Professor Mitchell, of the Edinburgh Veterinary School. Admirable as most of this work is and valuable contributions to veterinary literature as the papers are, they seem to go too far in their belittlement of traumatism (in the widest sense of that word) as a pathogenic factor in the diseases in question and consequently to deviate from scientific truth. In many fields of veterinary research, such as bovine disease and canine surgery, theoretical error may safely be left to the test of an ever-increasing experience, but in diseases of the horse the academical workers of the machine age may be in danger of expounding mistaken matter to students who will have little chance of correcting it in practice.

There is a logical reason why modern veterinary workers should pay more respect to the clinical records of the horse age. For nearly 100 years, up to about 1920, the best minds among veterinarians and the "country gentleman" class were directed mainly to the horse in health and disease. The dog and the ruminant were comparatively neglected. Consequently, the veterinary progress that has been made since 1920 has occurred in the relatively unexplored territory of canine medicine and surgery and the pathology of ruminants. The ease of this conquest has led modern academicians to suppose that they could make similar advances in the equine field without concerning themselves much about the hoary records of the past. Hence the difficulties, firstly, of Dr. Tom Hare and now of Professor Mitchell in their almost fruitless efforts to improve upon the work of the horse age in the matter of equine arthritis, its pathology, its treatment, its prophylaxis, and its classification. They have tried single-handed to make without straw the bricks which a mighty army of highly intelligent workers lacked to complete the monument to their industry.

The "Rheumatic Disease" of Professor Mitchell

The title "rheumatic disease," provisionally chosen by Professor Mitchell for the object of his special study, is proof enough of the difficulty—some would say the impossibility—of classifying under one head such diverse pathological conditions as splint and roaring and even, he hints, sprains of tendons. The connection between what he calls "rheumatic disease" and physical stress is so universal that if the relationship were now being discovered for the first time it would doubtless be regarded as the greatest common pathogenic factor without further question. Professor Mitchell, in trying to shut his eyes to what we of the horse age regarded as obvious, and his ears to opinions in which we were unanimous, has gotten himself into a difficulty which compels him to use arguments that are hard to understand and would be harder to sustain. Who, for instance, regarding the matter from any hitherto normal standpoint, would endorse the statement that "sciatica and lumbago . . . are represented in the horse by shivering, stringhalt, and jinked back?" If by the word "represented" Professor Mitchell means that these diseases of the horse and man are pathologically analogous the statement is not accurate; if he does not mean this the statement does not seem to have any practical bearing upon a study of the ætiology, for instance, of splint, which we of the horse age thought was a quite natural consequence of environmental conditions plus hereditary deficiency.

It is pertinent to take exception at this point to the way in which the leading clinical workers of the horse age seem to be ignored in these papers. They might well resent this neglect of their evidence and their opinions. In the discussions on these papers only Messrs. W. Scott and Perryman are reported as standing up in the fullness of their clinical experience to try to stem the torrent of theory, but without support and without apparent effect.

If anyone of us "old-timers," in a weak moment, initiates a bacteriological discussion without giving references to what has already been done or said by higher authority in that field, he is promptly and properly reproved; but the whole of the clinical experience of the past on a matter with which the past was vitally concerned and of which it knew much, tends to be ignored when the modern academician speaks about the horse. The founder of *The Veterinary Record*, for instance, wrote a book entitled "The Art of Horse-shoeing" mainly to show the pathogenic potentialities of the misuse of the iron shoe, but we may look in vain for any acknowledgment of that sort of evidence in these papers (except, perhaps, a devout reference by Mr. Steward to Professor Macqueen, in which the latter is quoted as exhorting his hearers to return thanks for the diurnal postponement of suppuration in a bursal enlargement).

Apart from a reference to the United States Army experience in the Philippines, Professor Mitchell gives no sign that he has read or considered any military veterinary evidence on the geographical distribution and incidence of arthritis. The late Sir F. Smith has much to say in his reports and statistics about the remarkable difference between the incidence of arthritis among cavalry horses in hot, dry countries, in cantonments and in soft open country like the veldt, where the rheumatic factor, so far as it may be influenced by cold or wet, can play little part. This difference was observed by Smith and others to be greatly accentuated by shoeing: the animals on the flying columns in South Africa were less than half shod for a great part of the time and arthritic conditions among them were rare. But after the war, among the shod animals used for training and other purposes on the hard sun-baked land and roads of cantonments, arthritis of many sorts was as common as in England.

Professor Mitchell does not appear to give enough consideration to the comparative aspect of the subject in his neglect of the traumatic factor, *i.e.*, he does not seem to enquire why the horse is so much more susceptible to "rheumatic disease" than the camel, the ox, and the donkey even where these animals are largely used for transport purposes. It may well be that in this aspect of the question may be found the key of the problem and on this point it is proposed to give Professor Mitchell an opening for counter-attack by offering some constructive criticism.

In opposition to his theory of a "rheumatic" ætiology, my thesis may be propounded in a metaphor appropriate to the machine age and thus specially intelligible to its children: that the horse is over-engined in relation to its chassis and that this is the main cause and a sufficient cause of its skeletal troubles. Heredity also enters into my thesis in that while the ox, the camel, and the donkey are, in locomotor respects, still bred fairly true to ancient type, the horse has been subjected to much artificial variation in breeding and to an intensive environment, all of which have been directed to developing the muscular and nervous systems. In the ox, on the contrary, artificial efforts have been directed mainly to the development of milk, so that the domestic animal has nothing like the locomotor capabilities of its ancient progenitors. In the intensive development of the muscular and nervous systems of the horse a capacity for power has been created beyond the capacity for resistance of bones, ligaments and tendons. The horse is the only working animal that can develop enough power to crush its own vertebræ by a single muscular spasm; *a fortiori* the horse is far more liable than any other transport animal to pathogenic overstrain of every part of its skeletal structure. If one could do with the horse as the Rolls Royce firm did with the Bentley and build its chassis in true proportion, in quality as well as quantity, to its engine power, "rheumatic disease" would give far less trouble.

An essential feature of the imaginary new chassis for the horse would, of course, be the provision of a hoof that should be equivalent in trauma-resisting, wearing, and shock-absorbing capacity to the pneumatic tyre of an automobile.

Such a device in place of the injurious iron shoe is obviously needed if a fine piece of powerful mechanism is to work, without consequent lesions, on rigid surfaces, proceed at speed with heavy weights or loads, and undergo other abnormal stresses which were not provided for by nature in the evolution of the horse. Nor, we may be sure, has man in his groping after more speed, more power, and more bulk for the horse been able in his genetic experiments to manage the evolutionary forces so exactly as to provide fully and equally for all those stresses. We have the example of such parallel experiments in genetics as the uneven development of the specialised milch cow for our authority in this conclusion, if common sense is not enough. Those who have stood for hours observing a military column, made up of horse, ox, and donkey transport, cross a river with steep muddy banks in moderate flood realise what a tremendous part a "high spirit" and powerful muscles must play in the incidence of traumatism. The sudden, excited, plunging movements of the iron-shod horse on slippery surfaces constitute a physical stress of which the undulating camel, the plodding ox, and the steady mule know little or nothing. But this respect, which is in effect a heredifary respect and liable to all manner and degrees of hereditary variation, is the only one in which the horse is at a comparative disadvantage with the other transport animals, unless abundant grain feeding be a disadvantage.

One has only to think of the camel in the desert and the ox in India as regards avitaminosis, and the donkey in Ireland as regards exposure to wet and cold, to admit the truth of this assertion. It was written of the horse that "it is the pace that kills" and perhaps that was a truer saying than any observation which would belittle traumatism as a pathogenic factor in diseases of the locomotor apparatus of the horse.

As regards the useful application of this new research, it may reasonably be doubted whether any sort of therapeutical or dietary treatment will ever nullify the consequences of physical over-stress in horses. In order to do hard work the powerful engine of the horse demands hard fuel in the form of corn, and plenty of it, so that there can be no modification in this direction, be the consequences what they may. With this reservation, we already know that anything that will improve the general or local metabolism will help to mitigate the consequences of a physical over-stress which I have tried to show is inevitable in an over-engined mechanism, that has to be worked largely on rigid slippery surfaces through the frictional medium of heavy masses of iron superimposed on soft structures. Good horse-masters for generations have mixed grated raw carrots or chopped greenstuff daily in the dry feeds of horses—long before vitamins were discovered and long before doctors thought of giving citrus fruit juice to children. Good horse-masters bedded horses knee-deep in straw when straw was dear and peat-moss or sawdust was cheap, long before it was suspected that rheumatism might be a contributory factor to disease of joints. The tradition of "turning out to grass" is another instance of how the sure instinct of men who lived close to nature anticipated the discoveries of experimental science.

In so far as Professor Mitchell's researches tend to confirm the wisdom of good horse-masters and to restrain the greed of those who deny such prophylactic blessings to working horses, his work will be of practical value and, if only for this reason, will be abundantly justified. But he will be well advised to drop the term "rheumatic disease," because it is misleading. Otherwise, young veterinary graduates of the future may be found telling their lady clients that they may gallop and jump their horses all day on hard ground so long as the animals get enough vitamins, are kept in central-heated stables and are given plenty of aspirin.

THE "NUCHAL DISEASE" OF MR. STEWARD

The paper on this subject is a fascinating one, which reflects the greatest credit on its author and which may prove to be a very useful piece of research. Like Professor Mitchell's work, however, it seems to go too far in its neglect of the part played by injury. One may strongly suspect that Mr. Steward has not been able to see many cases of "nuchal disease," *i.e.*, fistulous withers or poll-evil, actually in progress.

It is with no wish to deprecate the practical experience of younger colleagues, but in order to establish what seems to me to be a vital and relevant truth, that I would lay stress on the part played by real experience in the prevention and treatment of surgical conditions in the formation of true ideas concerning their ætiology. The ideas of Lister were born out of the travail of clinical distress and the work of Carrell was similarly founded.

It was my lot, as a third-year student, to have to do, singly, all the veterinary work for some hundreds of irregular cavalry or mounted infantry on flying column for many months in the absence of a qualified man (in addition to ordinary troop duties in the ranks) and after more than a year of this work to put in a similar time in a veterinary hospital in Natal. During the whole of these two years fistulous withers and backs were the bane of my existence. Rascally contractors in England delivered for use in the South African War many thousands of inferior "colonial" and "hunting" saddles for the use of Yeomanry and irregular cavalry in place of the regular cavalry saddle. It is not clear whether this was done to save expense, or because it was considered that irregular cavalry could not use regulation saddles, or because many of our mounts were small—but what is clear is that most of the saddles were bad. My own squadron received saddles with soft iron trees and cotton stuffing, which only lasted long enough to give a large proportion of the animals fistulous withers and backs. I had to help, day by day and often before dawn, to adjust the blanket or the stuffing of the saddle so as to try to prevent a sore back from becoming a fistulous sore—and often in vain. Mr. Hall Masheter (I am fairly sure it was he) may or may not remember my bringing to him at the midday halt of the Kimberley Column a batch of fistulous withers to where he sat (to my reverent eyes like a god) under a canopy of wagon cover stretched between two vehicles, and how after he had opened one case he gave up the business in disgust and told me, quite rightly, to shoot the rest. Subsequently, in the Newcastle (Natal) veterinary hospital in company with John Brown of Invergordon and Frank Dunning of South Africa, we had nearly as many cases of fistulous withers at one time as Mr. Steward has been able to find for his purposes in ten English counties. There was no seasonal incidence for these cases and it is doubtful if there were any Culicoides in the arid veldt of Griqualand West where my bitterest experiences occurred.

It does not seem to me, after a careful study of Mr. Steward's paper, that he has had such a distressing and extensive experience as this of cases of fistulous withers, which, in every instance that can be recalled, were obviously due to traumatism. Nor would it appear that Mr. Steward has been able to find out for himself, by a comparison of this sort of experience with many years of better conditions, that such an incident as that related by him in his "Cases 39, 40 and 44" (where three hunters in one stable in Sussex—presumably half or more of the stud—developed fistulous withers in one season) could not conceivably occur in any hunting or racing stable under skilled and disciplined management. If a similar proportion of such cases had occurred in a troop of a pre-War cavalry regiment—and such a thing is unthinkable—the troop officer would have been called upon to leave the regiment, the squadron leader would have to send in his papers, and the Colonel would have lost his command and have written to *The Times*. The fate of the troop sergeant baffles description!

If Mr. Davis (1928), quoted by Mr. Steward, states that he has never been able to trace a case of fistulous withers or poll-evil as directly due to traumatism, I hope Mr. Steward will give equal credence and equal value to my statement, to the recorded statements of Sir F. Smith, and the statements which I feel sure his enquiry would elicit from such great horse-masters as Brig.-General Eassie—namely, that in the whole of our experience we have seldom known of cases of fistulous withers which we could not trace directly to one or some combination of the following causes: ill-fitting or ill-fitted saddle or collar; neglect, either general or of some particular, such as a sitfast; warble plus pressure; emaciation; or too high or too thick withers, *i.e.*, conformation.*

If Mr. Steward now finds that in cart-horses in rural England the majority of cases of fistulous withers and poll-evil arise from a filarial infestation independently of trauma or any other of the above factors, he has discovered a type of these diseases which did not and does not commonly occur in military veterinary practice in peacetime, in well-conducted hunting or racing stables, or in properly supervised horse practice in cities. These cases, moreover, did not formerly occur commonly in rural England on farms where good management provided for a whole-time and experienced senior carter in sole charge of the cart-horse stable, which was the rule on good farms up to the beginning of this century throughout most of midland and southern England.

Alternatively, it seems to me possible that Mr. Steward missed the part played by traumatism in the production of "nuchal disease" even on English farms to-day because he did not believe in it, was not interested in it, and did not look for it. This alternative conclusion is strongly suggested by the fact that although Mr. Steward discusses treatment and the "state of the blood," he does not discuss prevention and the state of the muscles or the harness, or of horse-mastership, or of conformation, or warbles, or of any of the points which would come first in a clinical enquiry into such a matter. These omissions give the impression to a clinician that Mr. Steward may have been preoccupied with the parasitological side of his work to the exclusion of matters that might have told a different tale. This impression is further strengthened by a perusal of Mr. Steward's bibliographical references, where one looks in vain for such a well-informed discussion on possible traumatic causes of fistula as is contained in the military manual "Saddles and Sore Backs."

The Official Veterinary History of the Great War has evidence about the incidence of poll-evil as the result of injury on board ships which is pertinent to Mr. Steward's enquiry, this

* It may be mentioned here that the analogous fistulous condition of the camel's hump is obviously traumatic in origin.

evidence being contained in the chapter on War Dairies.

It seems to me, in short, that in the course of his investigations Mr. Steward did overlook or at least undervalue the part played by a lack of horse-mastership in the ætiology of of fistulous withers as well as of poll-evil. Consequently, he may have been disposed too readily to believe the stories of a sort of spontaneous combustion of the withers such as veterinarians of the horse age had so often to hear and to reject. When, thus believing, he also found the *Onchocerca cervicalis*, it was natural that he should regard it as the only important cause.

Whether my doubts are or are not well founded, however, it is clear that there is a great discrepancy somewhere between Mr. Steward's findings and the universal experience of the horse age, or at least the universal observations of the horse age. There is also a great discrepancy between his findings and the many accounts we have had of recent years of the alleged success of the treatment of "nuchal disease" by various sera and vaccines. It will be interesting to one who, like Mr. Dalling, is not a whole-hearted believer in these agents, to observe the reactions of this school of therapeutists to Mr. Steward's assertions. It will be a delicate matter to reconcile his work on "nuchal disease" with the many recorded instances of cure by biological preparations that would hardly affect the well-being of filaria.

If there is any value at all in my reactionary observations on this matter it may be found in this last reflection, that it will be a bad day for horses and horse-owners when every idle groom and horse-ignorant, jack-of-all-trades, farm hand can excuse his ineptitude or the badness of his equipment on the grounds of filariasis and be supported in that probable fallacy by some keen young practitioner. One can almost hear the dialogue: "That sore came of itself, the same as the last one"—a soft reply, and then a wandering forth not into the harness room to look at the collar but out into the meadow to look for the Culicoides.

Yours faithfully,

Wakefield Rainey.

From James Bay Hotel,
Victoria,
British Columbia.

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CLARITY OF EXPRESSION

To the Editor of The Veterinary Record

Sir,—It is probable that the majority of readers of *The Veterinary Record* turn with interest to the correspondence columns of this journal from issue to issue so that they may glean the trend of the current thoughts of others.

Without doubt, however, there are many who, like the writer, sigh with mental fatigue when they try to discover the meaning of the involved sentences used by some of your correspondents.

I suggest that it would be easier for all of us if, when taking up our pens, we were to remember the teachings of our early youth—the essence of a well-written letter lies in the brevity of its sentences.

I am, Yours, etc.,

H. M. Salusbury.

Sheffield.

February 17th, 1936.

The Editor acknowledges, with thanks, the receipt of the following:—

Communications from Messrs. Lindsay Auchterlonie (Nottingham), G. K. Buckler (Stevenage), C. Elphicke (Bedford), E. R. Jones (Entebbe, Uganda), and H. Lambert Smith (Carshalton).

Report of the Annual Meeting and Dinner of the Royal Counties Division, N.V.M.A., from Mr. H. Bell, Hon. Secretary.

Diseases of Animals Acts

SUMMARY OF RETURNS

Period.	Anthrax.		Foot-and-Mouth Disease.		Parasitic§ Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks confirmed.	Animals attacked.	Outbreaks confirmed.	Animals slaughtered as diseased or exposed to infection.	Outbreaks reported by the Local Authorities.	Animals attacked.	Outbreaks confirmed.	Outbreaks confirmed.	Swine slaughtered.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Period 1st to 15th Feb., 1936	25	26	—	—	9	48	23	90	68
Corresponding period in									
1935	23	24	3	371	13	21	20	70	29
1934	32	32	—	—	12	20	49	64	36
1933	23	25	6	782	10	15	35	29	9
Total 1st January to 15th Feb., 1936	71	93	4	389	25	75	84	303	171
Corresponding period in									
1935	60	64	20	4,285	39	54	103	213	79
1934	62	62	—	—	46	76	211	238	135
1933	62	73	36	3,497	40	71	115	94	16

Note.—The figures for the current year are approximate only. § Excluding outbreaks in Army Horses.